

Table A30. Number of Establishments that Actually Switched Fuels from Natural Gas to Residual Fuel Oil, by Industry Group and Selected Industries, 1994

SIC Code ^a	Industry Group and Industry	Natural Gas Switchable to Residual Fuel Oil (billion cu ft)	Establishments					RSE Row Factors
			Total (counts)	Able to Switch		Actually Switched		
				(counts)	(percents)	(counts)	(percents)	
RSE Column Factors:		1.3	0.1	1.4	1.7	1.6	1.8	
20	Food and Kindred Products	81	14,698	702	4.8	262	1.8	5.6
2011	Meat Packing Plants	4	759	23	3.0	10	1.3	9.0
2033	Canned Fruits and Vegetables	9	531	112	21.2	33	6.2	11.6
2037	Frozen Fruits and Vegetables	5	232	Q	5.3	Q	1.1	10.5
2046	Wet Corn Milling	2	58	3	4.9	W	W	17.0
2051	Bread, Cake, and Related Products	*	1,303	24	1.8	10	0.7	20.3
2061	Cane Sugar, Except Refining	0	43	0	0.0	0	0.0	9.1
2062	Cane Sugar Refining	4	20	W	W	W	W	17.6
2063	Beet Sugar	7	41	13	30.6	6	13.9	3.0
2075	Soybean Oil Mills	8	95	21	21.9	10	11.0	1.0
2082	Malt Beverages	13	140	49	34.7	31	22.0	6.4
21	Tobacco Products	1	121	39	32.4	28	23.3	9.2
22	Textile Mill Products	30	4,428	306	6.9	179	4.0	9.4
23	Apparel and Other Textile Products	3	18,019	99	0.6	25	0.1	19.0
24	Lumber and Wood Products	3	21,623	526	2.4	4	*	15.9
2421	Sawmills and Planing Mills, General	1	3,545	7	0.2	0	0.0	16.4
2436	Softwood Veneer and Plywood	0	182	0	0.0	0	0.0	9.1
2493	Reconstituted Wood Products	1	246	Q	Q	W	W	12.0
25	Furniture and Fixtures	1	7,691	252	3.3	0	0.0	18.5
2511	Wood Furniture, Except Upholstered	*	1,548	Q	Q	0	0.0	16.7
26	Paper and Allied Products	141	5,582	309	5.5	153	2.7	4.0
2611	Pulp Mills	4	55	12	21.9	10	18.8	7.2
2621	Paper Mills	49	310	87	28.0	48	15.6	3.4
2631	Paperboard Mills	80	219	84	38.4	51	23.1	2.0
27	Printing and Publishing	2	37,384	586	1.6	20	0.1	13.1
28	Chemicals and Allied Products	99	9,565	433	4.5	209	2.2	5.3
2812	Alkalies and Chlorine	W	44	4	8.6	0	0.0	6.8
2813	Industrial Gases	0	623	0	0.0	0	0.0	9.1
2816	Inorganic Pigments	2	81	9	11.6	4	5.0	6.3
2819	Industrial Inorganic Chemicals, nec.	3	568	28	5.0	9	1.6	10.9
2821	Plastics Materials and Resins	23	456	68	14.9	42	9.1	9.6
2822	Synthetic Rubber	1	63	9	14.4	6	10.3	11.0
2823	Cellulosic Manmade Fibers	0	11	0	0.0	0	0.0	9.1
2824	Organic Fibers, Noncellulosic	9	73	20	27.3	18	24.1	3.8
2861	Gum and Wood Chemicals	W	60	W	W	W	W	7.4
2865	Cyclic Crudes and Intermediates	13	187	41	21.7	22	11.7	8.2
2869	Industrial Organic Chemicals, nec.	17	631	43	6.8	22	3.5	9.8
2873	Nitrogenous Fertilizers	1	118	6	5.4	W	W	13.6
2874	Phosphatic Fertilizers	3	69	5	7.3	3	3.6	4.3
2895	Carbon Black	*	23	W	W	0	0.0	14.1
29	Petroleum and Coal Products	79	1,971	120	6.1	44	2.2	10.6
2911	Petroleum Refining	75	247	55	22.1	25	10.3	3.4
30	Rubber and Misc. Plastics Products	22	11,952	322	2.7	107	0.9	11.5
3011	Tires and Inner Tubes	13	112	38	34.1	29	25.8	6.7
308	Miscellaneous Plastics Products, nec.	6	9,967	243	2.4	66	Q	15.3
31	Leather and Leather Products	1	1,356	65	4.8	Q	Q	19.7
32	Stone, Clay and Glass Products	26	11,970	276	2.3	26	0.2	9.1
3211	Flat Glass	2	68	W	W	W	W	19.0
3221	Glass Containers	5	78	10	12.9	7	8.6	6.2
3229	Pressed and Blown Glass, nec.	4	163	Q	Q	0	0.0	15.9
3241	Cement, Hydraulic	2	190	19	10.2	5	2.8	10.6
3274	Lime	1	84	7	8.1	W	W	18.3
3296	Mineral Wool	*	174	W	W	0	0.0	11.0
33	Primary Metal Industries	53	5,171	125	2.4	35	0.7	8.9
331	Blast Furnace and Basic Steel Products	47	981	45	4.6	19	2.0	8.2
3312	Blast Furnaces and Steel Mills	46	284	29	10.3	11	3.8	5.8
3313	Electrometallurgical Products	0	36	0	0.0	0	0.0	9.1
3321	Gray and Ductile Iron Foundries	1	517	20	Q	W	W	16.8
3331	Primary Copper	W	20	W	W	0	0.0	1.3
3334	Primary Aluminum	1	44	6	13.6	0	0.0	2.3
3339	Primary Nonferrous Metals, nec.	W	88	W	W	W	W	17.3
3353	Aluminum Sheet, Plate, and Foil	W	55	W	W	0	0.0	9.0
34	Fabricated Metal Products	10	26,262	559	2.1	40	0.2	17.0
35	Industrial Machinery and Equipment	4	33,837	643	1.9	28	0.1	14.0
357	Computer and Office Equipment	*	1,410	Q	Q	0	0.0	15.9
36	Electronic and Other Electric Equipment	8	11,264	89	0.8	23	0.2	10.8

See footnotes at end of table.

Table A30. Number of Establishments that Actually Switched Fuels from Natural Gas to Residual Fuel Oil, by Industry Group and Selected Industries, 1994 (Continued)

SIC Code ^a	Industry Group and Industry	Natural Gas Switchable to Residual Fuel Oil (billion cu ft)	Establishments					RSE Row Factors
			Total (counts)	Able to Switch		Actually Switched		
				(counts)	(percents)	(counts)	(percents)	
RSE Column Factors:		1.3	0.1	1.4	1.7	1.6	1.8	
37	Transportation Equipment	12	7,240	161	2.2	20	0.3	12.9
3711	Motor Vehicles and Car Bodies	1	322	W	W	W	W	22.4
3714	Motor Vehicle Parts and Accessories	2	2,062	11	0.5	5	0.2	14.8
38	Instruments and Related Products	3	7,071	63	0.9	14	0.2	12.5
3841	Surgical and Medical Instruments	*	878	W	W	0	0.0	9.1
39	Misc. Manufacturing Industries	1	9,994	105	1.1	Q	Q	17.9
Total		579	247,199	5,779	2.3	1,279	0.5	3.9

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A31. Percent of Establishments by Primary Reasons for Actually Switching Fuels from Natural Gas to Residual Fuel Oil, by Industry Group and Selected Industries, 1994

SIC Code ^a	Industry Group and Industry	Establishments that Actually Switched ^b (counts)	Reasons					RSE Row Factors
			Supply Shortage or Curtailment of Fuel	Down-Time Caused by Maintenance	Residual Fuel Oil Was Less Expensive	Environmental Restriction on Emissions or Waste	Other	
RSE Column Factors:		0.7	0.5	1.2	0.7	2.3	1.7	
20	Food and Kindred Products	262	73.5	3.5	47.6	Q	6.7	16.2
2011	Meat Packing Plants	10	100.0	0.0	60.1	0.0	W	18.9
2033	Canned Fruits and Vegetables	33	78.7	W	78.1	W	0.0	19.2
2037	Frozen Fruits and Vegetables	Q	100.0	0.0	0.0	0.0	0.0	0.0
2046	Wet Corn Milling	W	0.0	0.0	W	0.0	0.0	48.8
2051	Bread, Cake, and Related Products	10	100.0	0.0	0.0	0.0	0.0	56.2
2061	Cane Sugar, Except Refining	0	0.0	0.0	0.0	0.0	0.0	0.0
2062	Cane Sugar Refining	W	W	0.0	0.0	0.0	0.0	40.0
2063	Beet Sugar	6	100.0	0.0	W	0.0	0.0	5.9
2075	Soybean Oil Mills	10	66.7	W	44.4	0.0	W	1.5
2082	Malt Beverages	31	69.5	0.0	47.9	0.0	W	11.3
21	Tobacco Products	28	76.1	0.0	W	0.0	W	27.0
22	Textile Mill Products	179	82.9	Q	26.8	Q	W	24.6
23	Apparel and Other Textile Products	25	100.0	0.0	0.0	0.0	0.0	48.8
24	Lumber and Wood Products	4	0.0	0.0	100.0	0.0	0.0	42.9
2421	Sawmills and Planing Mills, General	0	0.0	0.0	0.0	0.0	0.0	0.0
2436	Softwood Veneer and Plywood	0	0.0	0.0	0.0	0.0	0.0	0.0
2493	Reconstituted Wood Products	W	0.0	0.0	W	0.0	0.0	69.6
25	Furniture and Fixtures	0	0.0	0.0	0.0	0.0	0.0	0.0
2511	Wood Furniture, Except Upholstered	0	0.0	0.0	0.0	0.0	0.0	0.0
26	Paper and Allied Products	153	75.2	14.0	50.2	4.1	13.0	11.3
2611	Pulp Mills	10	66.7	0.0	50.0	W	W	16.0
2621	Paper Mills	48	81.6	7.9	47.4	0.0	7.9	8.1
2631	Paperboard Mills	51	84.1	22.7	56.8	W	W	3.6
27	Printing and Publishing	20	73.4	26.6	33.4	0.0	0.0	34.4
28	Chemicals and Allied Products	209	80.3	12.5	51.1	3.1	2.1	10.5
2812	Alkalies and Chlorine	0	0.0	0.0	0.0	0.0	0.0	0.0
2813	Industrial Gases	0	0.0	0.0	0.0	0.0	0.0	0.0
2816	Inorganic Pigments	4	100.0	0.0	66.7	0.0	0.0	12.4
2819	Industrial Inorganic Chemicals, nec.	9	66.7	W	66.7	0.0	0.0	17.1
2821	Plastics Materials and Resins	42	57.8	20.2	58.4	W	W	21.4
2822	Synthetic Rubber	6	80.0	0.0	W	0.0	0.0	27.8
2823	Cellulosic Manmade Fibers	0	0.0	0.0	0.0	0.0	0.0	0.0
2824	Organic Fibers, Noncellulosic	18	93.3	26.7	60.0	0.0	0.0	5.6
2861	Gum and Wood Chemicals	W	W	0.0	0.0	0.0	0.0	17.8
2865	Cyclic Crudes and Intermediates	22	74.4	0.0	92.0	0.0	0.0	11.1
2869	Industrial Organic Chemicals, nec.	22	88.8	16.8	47.3	0.0	W	17.7
2873	Nitrogenous Fertilizers	W	W	0.0	0.0	0.0	0.0	48.8
2874	Phosphatic Fertilizers	3	W	0.0	100.0	0.0	0.0	12.5
2895	Carbon Black	0	0.0	0.0	0.0	0.0	0.0	0.0
29	Petroleum and Coal Products	44	64.9	37.7	44.2	Q	Q	41.5
2911	Petroleum Refining	25	52.6	15.8	63.2	W	10.5	7.9
30	Rubber and Misc. Plastics Products	107	36.4	7.9	73.9	W	Q	38.6
3011	Tires and Inner Tubes	29	48.6	W	51.3	W	15.3	15.5
308	Miscellaneous Plastics Products, nec.	66	Q	Q	88.3	0.0	60.7	25.8
31	Leather and Leather Products	Q	Q	0.0	0.0	0.0	W	14.0
32	Stone, Clay and Glass Products	26	75.9	18.4	59.8	0.0	W	16.5
3211	Flat Glass	W	0.0	0.0	0.0	0.0	W	37.0
3221	Glass Containers	7	83.3	0.0	83.3	0.0	0.0	10.2
3229	Pressed and Blown Glass, nec.	0	0.0	0.0	0.0	0.0	0.0	0.0
3241	Cement, Hydraulic	5	100.0	66.7	W	0.0	0.0	27.2
3274	Lime	W	W	0.0	W	0.0	0.0	72.5
3296	Mineral Wool	0	0.0	0.0	0.0	0.0	0.0	0.0
33	Primary Metal Industries	35	74.4	10.0	29.9	W	W	20.7
331	Blast Furnace and Basic Steel Products	19	61.3	W	38.2	W	0.0	17.4
3312	Blast Furnaces and Steel Mills	11	42.9	W	42.9	0.0	0.0	19.5
3313	Electrometallurgical Products	0	0.0	0.0	0.0	0.0	0.0	0.0
3321	Gray and Ductile Iron Foundries	W	W	0.0	0.0	0.0	0.0	0.0
3331	Primary Copper	0	0.0	0.0	0.0	0.0	0.0	0.0
3334	Primary Aluminum	0	0.0	0.0	0.0	0.0	0.0	0.0
3339	Primary Nonferrous Metals, nec.	W	W	0.0	0.0	0.0	0.0	48.8
3353	Aluminum Sheet, Plate, and Foil	0	0.0	0.0	0.0	0.0	0.0	0.0
34	Fabricated Metal Products	40	78.9	7.2	41.1	W	W	44.1
35	Industrial Machinery and Equipment	28	62.7	W	30.1	0.0	Q	42.0
357	Computer and Office Equipment	0	0.0	0.0	0.0	0.0	0.0	0.0
36	Electronic and Other Electric Equipment	23	74.4	20.6	57.6	0.0	0.0	21.8

See footnotes at end of table.

Table A31. Percent of Establishments by Primary Reasons for Actually Switching Fuels from Natural Gas to Residual Fuel Oil, by Industry Group and Selected Industries, 1994 (Continued)

			Reasons					RSE Row Factors
			Supply Shortage or Curtailment of Fuel	Down-Time Caused by Maintenance	Residual Fuel Oil Was Less Expensive	Environmental Restriction on Emissions or Waste	Other	
SIC Code ^a	Industry Group and Industry	Establishments that Actually Switched ^b (counts)						
RSE Column Factors:		0.7	0.5	1.2	0.7	2.3	1.7	
37	Transportation Equipment	20	71.8	28.6	21.1	14.1	W	18.3
3711	Motor Vehicles and Car Bodies	W	W	0.0	0.0	0.0	0.0	0.0
3714	Motor Vehicle Parts and Accessories	5	100.0	W	0.0	0.0	0.0	41.0
38	Instruments and Related Products	14	72.1	W	55.8	0.0	W	25.1
3841	Surgical and Medical Instruments	0	0.0	0.0	0.0	0.0	0.0	0.0
39	Misc. Manufacturing Industries	Q	Q	0.0	Q	0.0	79.8	11.1
Total		1,279	70.2	9.0	42.9	3.6	13.5	11.3

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

^b This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • Sum of component percents may exceed 100 percent because multiple responses, if applicable, were accepted.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A32. Percent of Establishments by Levels of Price Difference between Natural Gas and Less Expensive Residual Fuel Oil that Would Cause Fuel Switching from Natural Gas to Residual Fuel Oil, by Industry Group and Selected Industries, 1994

SIC Code ^a Industry Group and Industry		Estab- lishments Able to Switch ^b (counts)	Levels of Price Difference ^c between Natural Gas and Less Expensive Residual Fuel Oil											RSE Row Factors
			1 - 5 Percent	6 - 10 Percent	11 - 15 Percent	16 - 20 Percent	21 - 30 Percent	31 - 40 Percent	41 - 50 Percent	Over 50 Percent	Would Not Switch Due to Price	Estimate Cannot Be Provided	Would Switch to More Expensive Substitute	
RSE Column Factors:		0.5	0.8	0.8	1.1	1.3	1.2	1.3	1.6	1.3	0.9	0.7	1.2	
20	Food and Kindred Products	702	11.6	11.4	10.3	7.9	3.6	0.8	0.0	0.6	16.2	37.7	0.0	20.2
2011	Meat Packing Plants	23	17.2	26.7	0.0	0.0	0.0	W	0.0	0.0	W	39.1	0.0	27.4
2033	Canned Fruits and Vegetables	112	Q	14.0	3.3	Q	Q	0.0	0.0	10.8	39.1	0.0	0.0	46.7
2037	Frozen Fruits and Vegetables	Q	0.0	W	22.7	0.0	0.0	0.0	0.0	0.0	30.1	W	0.0	26.1
2046	Wet Corn Milling	3	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	40.5
2051	Bread, Cake, and Related Products	24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Q	72.4	0.0	45.2
2061	Cane Sugar, Except Refining	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2062	Cane Sugar Refining	W	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.3
2063	Beet Sugar	13	W	W	W	0.0	0.0	0.0	0.0	0.0	0.0	45.5	0.0	7.3
2075	Soybean Oil Mills	21	W	27.8	W	0.0	0.0	0.0	0.0	0.0	22.2	38.9	0.0	2.1
2082	Malt Beverages	49	0.0	14.0	69.3	0.0	0.0	W	0.0	W	0.0	W	0.0	16.5
21	Tobacco Products	39	W	26.2	20.3	0.0	W	W	0.0	0.0	0.0	19.0	W	36.7
22	Textile Mill Products	306	19.5	12.6	16.1	2.6	Q	0.0	W	W	12.7	24.3	0.0	28.0
23	Apparel and Other Textile Products	99	W	Q	W	W	W	0.0	0.0	0.0	Q	53.4	0.0	48.0
24	Lumber and Wood Products	526	Q	W	Q	0.0	Q	0.0	W	W	Q	55.5	0.0	59.9
2421	Sawmills and Planing Mills, General	7	0.0	0.0	0.0	0.0	W	0.0	0.0	0.0	0.0	80.5	0.0	31.8
2436	Softwood Veneer and Plywood	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2493	Reconstituted Wood Products	Q	W	W	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	0.0	45.4
25	Furniture and Fixtures	252	0.0	W	W	W	W	0.0	W	0.0	Q	Q	W	84.9
2511	Wood Furniture, Except Upholstered	Q	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0
26	Paper and Allied Products	309	13.2	17.7	4.6	4.0	3.5	3.6	1.0	Q	17.5	33.3	W	17.3
2611	Pulp Mills	12	W	0.0	0.0	W	0.0	W	0.0	0.0	0.0	57.1	0.0	21.6
2621	Paper Mills	87	8.8	25.0	7.3	4.4	W	4.4	0.0	0.0	11.8	35.3	W	11.7
2631	Paperboard Mills	84	23.3	24.6	5.5	W	4.1	W	W	W	9.6	27.5	0.0	6.5
27	Printing and Publishing	586	1.2	Q	0.0	Q	W	Q	0.0	0.0	39.0	31.5	W	44.6
28	Chemicals and Allied Products	433	11.9	14.4	6.1	W	0.9	1.7	1.4	W	25.7	26.7	2.9	20.3
2812	Alkalies and Chlorine	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	0.0	12.0
2813	Industrial Gases	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2816	Inorganic Pigments	9	0.0	28.6	0.0	0.0	0.0	W	0.0	0.0	28.6	W	0.0	14.5
2819	Industrial Inorganic Chemicals, nec.	28	11.1	11.1	0.0	0.0	0.0	W	W	0.0	19.4	47.3	0.0	30.1
2821	Plastics Materials and Resins	68	13.5	22.3	5.4	0.0	W	0.0	W	0.0	17.5	31.6	W	31.8
2822	Synthetic Rubber	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	42.9	29.1
2823	Cellulosic Manmade Fibers	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2824	Organic Fibers, Noncellulosic	20	41.2	35.3	W	0.0	W	0.0	0.0	0.0	0.0	W	0.0	10.7
2861	Gum and Wood Chemicals	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	0.0	14.5
2865	Cyclic Crudes and Intermediates	41	26.6	8.5	8.5	0.0	0.0	0.0	0.0	W	31.4	W	0.0	28.7
2869	Industrial Organic Chemicals, nec.	43	18.4	Q	12.6	0.0	W	0.0	0.0	0.0	W	31.9	9.2	27.7
2873	Nitrogenous Fertilizers	6	0.0	W	0.0	40.0	0.0	0.0	W	0.0	0.0	W	0.0	28.6
2874	Phosphatic Fertilizers	5	W	0.0	W	0.0	0.0	0.0	0.0	0.0	W	W	0.0	10.1
2895	Carbon Black	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	44.6
29	Petroleum and Coal Products	120	6.7	16.7	4.4	3.3	Q	0.0	W	0.0	15.5	34.0	W	26.0
2911	Petroleum Refining	55	14.6	14.6	4.9	7.3	0.0	0.0	W	0.0	19.5	34.1	W	9.7
30	Rubber and Misc. Plastics Products	322	11.0	8.1	2.0	Q	1.0	0.0	0.0	W	27.8	34.6	W	40.0
3011	Tires and Inner Tubes	38	44.8	11.6	7.7	0.0	0.0	0.0	0.0	0.0	W	W	0.0	16.1
308	Miscellaneous Plastics Products, nec.	243	6.2	6.5	0.0	Q	W	0.0	0.0	W	34.8	36.7	W	52.0
31	Leather and Leather Products	65	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	Q	55.1	W	70.3
32	Stone, Clay and Glass Products	276	Q	6.1	2.2	Q	Q	1.1	0.0	0.0	W	42.3	W	39.7
3211	Flat Glass	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	0.0	53.1
3221	Glass Containers	10	0.0	W	W	W	0.0	0.0	0.0	0.0	0.0	33.3	W	17.8
3229	Pressed and Blown Glass, nec.	Q	0.0	0.0	W	W	0.0	0.0	0.0	0.0	W	W	0.0	51.0
3241	Cement, Hydraulic	19	W	0.0	18.2	W	0.0	W	0.0	0.0	W	45.5	0.0	31.0
3274	Lime	7	0.0	W	0.0	0.0	W	0.0	0.0	0.0	W	W	W	47.3
3296	Mineral Wool	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	0.0	19.1
33	Primary Metal Industries	125	Q	11.8	2.8	2.2	W	0.0	0.0	W	30.9	39.6	0.0	27.0
331	Blast Furnace and Basic Steel Products	45	29.7	20.1	W	0.0	0.0	0.0	0.0	0.0	W	43.4	0.0	31.4
3312	Blast Furnaces and Steel Mills	29	15.8	26.3	W	0.0	0.0	0.0	0.0	0.0	W	47.4	0.0	17.1
3313	Electrometallurgical Products	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3321	Gray and Ductile Iron Foundries	20	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	76.1	W	0.0	41.1
3331	Primary Copper	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	0.0	0.0	2.1
3334	Primary Aluminum	6	0.0	0.0	0.0	0.0	W	0.0	0.0	0.0	60.0	W	0.0	21.2
3339	Primary Nonferrous Metals, nec.	W	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.1
3353	Aluminum Sheet, Plate, and Foil	W	0.0	0.0	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.5
34	Fabricated Metal Products	559	Q	1.5	0.5	W	W	0.0	0.0	Q	47.3	40.1	0.0	55.2
35	Industrial Machinery and Equipment	643	1.3	Q	Q	Q	W	0.0	0.0	W	Q	39.4	0.0	64.0
357	Computer and Office Equipment	Q	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	2.9
36	Electronic and Other Electric Equipment	89	8.8	11.7	Q	0.0	W	0.0	0.0	0.0	39.7	W	0.0	35.8

See footnotes at end of table.

Table A32. Percent of Establishments by Levels of Price Difference between Natural Gas and Less Expensive Residual Fuel Oil that Would Cause Fuel Switching from Natural Gas to Residual Fuel Oil, by Industry Group and Selected Industries, 1994 (Continued)

		Estab- lishments Able to Switch ^b (counts)	Levels of Price Difference ^c between Natural Gas and Less Expensive Residual Fuel Oil											RSE Row Factors
			1 - 5 Percent	6 - 10 Percent	11 - 15 Percent	16 - 20 Percent	21 - 30 Percent	31 - 40 Percent	41 - 50 Percent	Over 50 Percent	Would Not Switch Due to Price	Estimate Cannot Be Provided	Would Switch to More Expensive Substitute	
SIC Code ^a	Industry Group and Industry													
RSE Column Factors:		0.5	0.8	0.8	1.1	1.3	1.2	1.3	1.6	1.3	0.9	0.7	1.2	
37	Transportation Equipment	161	Q	Q	Q	W	Q	W	W	0.0	Q	Q	W	84.9
3711	Motor Vehicles and Car Bodies	W	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3714	Motor Vehicle Parts and Accessories	11	0.0	31.4	0.0	0.0	0.0	0.0	0.0	0.0	25.2	43.3	0.0	38.6
38	Instruments and Related Products	63	14.5	8.5	W	0.0	Q	W	W	0.0	Q	27.7	0.0	51.0
3841	Surgical and Medical Instruments	W	0.0	0.0	0.0	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	Misc. Manufacturing Industries	105	W	0.0	0.0	W	0.0	0.0	0.0	W	Q	59.9	W	64.1
Total		5,779	6.3	6.6	7.1	4.6	4.4	2.8	0.6	2.1	25.7	38.1	1.7	21.7

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

^b This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.

^c These levels of price difference were guesstimates at which establishments perceived that they would switch. These levels were not actual values at which switching occurred. The percentage of price difference is computed as the quantity of (current fuel price minus alternative fuel price) divided by the current fuel price, expressed as a percent.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • Establishment percents may not equal 100 percent because of unknown and/or unreported fuel-switching guesstimate.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A33. Capability to Switch from Residual Fuel Oil to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994:
Part 1
(Estimates in Thousand Barrels)

SIC Code ^a Industry Group and Industry		Residual Fuel Oil			Alternative Types of Energy ^b							RSE Row Factors
		Total Consumed ^c	Switchable	Not Switchable	Electricity Receipts ^d	Natural Gas	Distillate Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other ^e	
RSE Column Factors:		0.6	0.6	0.8	1.6	0.6	0.9	1.5	1.1	2.1	1.3	
20	Food and Kindred Products	4,785	2,770	1,603	W	2,279	1,021	201	180	0	442	14.9
2011	Meat Packing Plants	138	124	W	*	124	*	*	*	0	0	28.7
2033	Canned Fruits and Vegetables	241	123	118	0	102	42	21	0	0	Q	33.1
2037	Frozen Fruits and Vegetables	204	W	Q	W	42	0	0	0	0	1	37.1
2046	Wet Corn Milling	169	W	19	0	143	0	0	0	0	0	60.2
2051	Bread, Cake, and Related Products	Q	Q	0	0	2	0	0	W	0	0	62.9
2061	Cane Sugar, Except Refining	W	269	71	W	W	188	W	0	0	131	24.1
2062	Cane Sugar Refining	313	123	190	0	123	0	0	0	0	0	51.3
2063	Beet Sugar	270	W	W	0	247	W	0	0	0	0	7.2
2075	Soybean Oil Mills	147	136	0	W	136	89	0	W	0	W	1.1
2082	Malt Beverages	W	372	W	0	370	W	Q	0	0	W	2.1
21	Tobacco Products	133	106	27	0	106	0	0	0	0	0	35.9
22	Textile Mill Products	2,680	1,000	1,474	Q	884	377	W	Q	0	W	26.7
23	Apparel and Other Textile Products	W	Q	Q	0	Q	0	0	0	0	0	75.2
24	Lumber and Wood Products	W	W	W	Q	W	W	Q	W	*	0	24.6
2421	Sawmills and Planing Mills, General	W	Q	10	Q	W	W	Q	W	*	0	67.0
2436	Softwood Veneer and Plywood	Q	0	Q	0	0	0	0	0	0	0	0.0
2493	Reconstituted Wood Products	W	W	W	0	W	W	0	W	0	0	25.6
25	Furniture and Fixtures	60	Q	46	0	4	Q	4	0	0	0	38.4
2511	Wood Furniture, Except Upholstered	47	Q	37	0	0	Q	0	0	0	0	40.8
26	Paper and Allied Products	27,444	9,707	17,156	1,529	6,355	2,792	847	543	W	1,010	7.2
2611	Pulp Mills	3,583	802	2,480	0	567	2	24	0	0	212	25.6
2621	Paper Mills	14,942	3,687	11,116	W	1,301	1,246	396	W	0	398	13.4
2631	Paperboard Mills	7,914	4,650	3,207	W	3,989	1,474	427	466	W	370	5.9
27	Printing and Publishing	W	W	W	0	44	5	0	9	0	0	36.7
28	Chemicals and Allied Products	9,567	3,912	5,564	256	2,849	1,313	252	440	W	67	10.6
2812	Alkalies and Chlorine	W	W	*	0	W	0	0	0	0	0	22.0
2813	Industrial Gases	0	0	0	0	0	0	0	0	0	0	0.0
2816	Inorganic Pigments	W	W	0	0	141	0	0	0	0	0	21.6
2819	Industrial Inorganic Chemicals, nec.	588	292	283	0	260	29	W	W	0	W	24.3
2821	Plastics Materials and Resins	542	456	83	0	332	127	W	W	0	0	16.4
2822	Synthetic Rubber	W	W	0	0	49	14	0	14	0	0	39.3
2823	Cellulosic Manmade Fibers	0	0	0	0	0	0	0	0	0	0	0.0
2824	Organic Fibers, Noncellulosic	1,435	W	W	W	398	W	W	W	0	0	13.3
2861	Gum and Wood Chemicals	*	*	0	0	*	0	0	0	0	0	23.3
2865	Cyclic Crudes and Intermediates	W	568	957	0	514	228	0	*	0	Q	28.9
2869	Industrial Organic Chemicals, nec.	795	511	261	0	511	22	0	Q	0	40	21.9
2873	Nitrogenous Fertilizers	0	0	0	0	0	0	0	0	0	0	0.0
2874	Phosphatic Fertilizers	W	W	W	0	W	W	W	0	W	0	9.7
2895	Carbon Black	W	0	W	0	0	0	0	0	0	0	26.2
29	Petroleum and Coal Products	11,378	6,504	4,093	W	6,174	1,611	W	4,156	0	W	10.5
2911	Petroleum Refining	10,891	6,294	3,860	W	5,964	1,583	W	4,131	0	W	11.0
30	Rubber and Misc. Plastics Products	1,600	1,213	353	111	1,186	187	6	74	0	W	17.3
3011	Tires and Inner Tubes	720	718	W	W	718	47	0	W	0	W	12.3
308	Miscellaneous Plastics Products, nec.	497	257	240	2	243	32	6	5	0	Q	29.0
31	Leather and Leather Products	250	W	229	0	W	0	0	0	0	0	34.7
32	Stone, Clay and Glass Products	1,187	551	636	0	551	31	126	0	W	116	25.1
3211	Flat Glass	244	0	244	0	0	0	0	0	0	0	64.7
3221	Glass Containers	336	W	W	0	311	0	0	0	0	0	23.3
3229	Pressed and Blown Glass, nec.	W	0	W	0	0	0	0	0	0	0	30.8
3241	Cement, Hydraulic	158	123	35	0	123	6	123	0	W	113	40.1
3274	Lime	105	Q	Q	0	Q	0	Q	0	0	Q	60.6
3296	Mineral Wool	W	W	0	0	W	0	0	0	0	0	39.9
33	Primary Metal Industries	6,870	3,930	2,863	W	2,254	675	W	859	W	W	21.3
331	Blast Furnace and Basic Steel Products	6,680	3,823	2,790	W	2,179	W	W	853	W	W	21.6
3312	Blast Furnaces and Steel Mills	6,659	3,803	2,790	W	2,170	W	W	853	W	W	21.6
3313	Electrometallurgical Products	0	0	0	0	0	0	0	0	0	0	0.0
3321	Gray and Ductile Iron Foundries	Q	Q	*	0	Q	0	0	0	0	0	51.2
3331	Primary Copper	W	W	W	0	W	0	0	0	0	0	1.6
3334	Primary Aluminum	W	W	0	0	W	0	0	0	0	0	1.7
3339	Primary Nonferrous Metals, nec.	W	W	0	0	W	0	0	0	0	0	48.2
3353	Aluminum Sheet, Plate, and Foil	0	0	0	0	0	0	0	0	0	0	0.0
34	Fabricated Metal Products	478	375	70	105	352	261	0	W	W	80	35.3
35	Industrial Machinery and Equipment	W	202	220	0	173	47	Q	0	0	0	36.0
357	Computer and Office Equipment	W	0	*	0	0	0	0	0	0	0	67.8
36	Electronic and Other Electric Equipment	415	204	201	Q	155	W	W	37	W	Q	27.5

See footnotes at end of table.

Table A33. Capability to Switch from Residual Fuel Oil to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1 (Continued)
(Estimates in Thousand Barrels)

		Residual Fuel Oil			Alternative Types of Energy ^b							RSE Row Factors
SIC Code ^a	Industry Group and Industry	Total Consumed ^c	Switchable	Not Switchable	Electricity Receipts ^d	Natural Gas	Distillate Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other ^e	
RSE Column Factors:		0.6	0.6	0.8	1.6	0.6	0.9	1.5	1.1	2.1	1.3	
37	Transportation Equipment	1,781	667	989	232	665	33	Q	Q	0	6	31.0
3711	Motor Vehicles and Car Bodies	300	66	234	0	66	0	0	*	0	0	53.3
3714	Motor Vehicle Parts and Accessories	W	38	0	0	38	Q	Q	Q	0	0	58.2
38	Instruments and Related Products	589	340	211	35	176	211	35	0	0	1	29.6
3841	Surgical and Medical Instruments	16	0	0	0	0	0	0	0	0	0	86.8
39	Misc. Manufacturing Industries	142	86	W	0	75	38	0	10	0	27	41.3
Total		70,111	31,725	35,972	2,416	24,382	8,758	3,305	6,578	848	2,220	6.4
Census Region and Division												
Northeast		24,368	8,721	14,960	W	7,007	2,000	W	1,219	155	1,100	8.1
New England		13,730	3,110	10,200	606	1,922	1,136	W	217	W	533	13.9
Middle Atlantic		10,638	5,612	4,760	W	5,085	864	293	1,002	W	568	9.4
Midwest		11,969	8,205	3,356	202	6,362	2,653	1,699	3,938	W	Q	13.4
East North Central		W	6,556	3,257	202	4,739	2,335	W	3,383	W	Q	15.0
West North Central		W	1,650	99	0	1,623	317	W	554	0	13	13.0
South		28,003	12,570	14,560	1,278	9,554	2,977	932	806	W	698	8.4
South Atlantic		W	10,856	11,951	1,277	7,853	2,594	913	670	W	662	9.1
East South Central		W	1,329	843	1	1,326	383	W	136	1	36	15.9
West South Central		2,450	385	1,766	0	375	0	W	0	0	0	15.2
West		5,772	2,228	3,095	W	1,460	1,129	W	616	0	279	11.2
Mountain		1,162	745	409	W	660	400	0	393	0	0	14.1
Pacific		4,610	1,483	2,687	W	800	728	W	222	0	279	13.3
Total		70,111	31,725	35,972	2,416	24,382	8,758	3,305	6,578	848	2,220	6.4
Value of Shipments and Receipts ^f (million dollars)												
Under 20		3,495	1,208	1,599	W	1,100	493	124	168	W	W	16.1
20-49		6,092	2,674	3,191	93	2,268	1,141	115	317	W	460	15.2
50-99		7,731	3,167	4,226	W	2,210	1,069	310	205	W	277	11.9
100-249		14,410	5,214	8,738	398	4,518	1,301	476	708	W	129	8.3
250-499		19,258	8,051	10,716	1,454	5,183	2,360	469	1,204	70	925	9.5
500 and Over		19,126	11,410	7,501	314	9,103	2,392	1,811	3,976	W	W	11.6
Total		70,111	31,725	35,972	2,416	24,382	8,758	3,305	6,578	848	2,220	6.4
Employment Size ^g												
Under 50		1,223	273	814	Q	246	148	W	74	*	66	30.3
50-99		3,532	1,096	1,951	W	901	441	W	122	W	445	12.9
100-249		9,760	4,455	4,477	W	3,664	1,727	389	871	W	386	10.6
250-499		12,974	6,069	6,351	144	5,142	1,610	267	1,187	W	243	10.0
500-999		14,331	7,097	7,112	1,215	5,114	1,358	282	938	W	356	9.4
1,000 and Over		28,292	12,734	15,266	845	9,315	3,473	2,242	3,386	693	722	10.4
Total		70,111	31,725	35,972	2,416	24,382	8,758	3,305	6,578	848	2,220	6.4

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

^b "Alternative Types of Energy" consist of those energy sources that could have been substituted for residual fuel oil during 1994. The quantities are expressed in thousands of barrels, and therefore represent the quantity of residual fuel oil that could have been displaced by the given alternative type of energy.

^c "Total Consumed" represents those quantities (Total Inputs) of residual fuel oil that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^d "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^e "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of residual fuel oil.

^f Value of Shipments and Receipts and Employment Size categories were supplied by the Bureau of the Census. See Appendix B.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A33. Number of Establishments by Capability to Switch from Residual Fuel Oil to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2

		Residual Fuel Oil ^b			Alternative Types of Energy ^c							RSE Row Factors
		Total Consumed ^d	Switchable	Not Switchable	Electricity Receipts ^e	Natural Gas	Distillate Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other ^f	
SIC Code ^a	Industry Group and Industry											
RSE Column Factors:		0.7	0.7	0.8	1.4	0.7	1.0	1.2	1.2	1.3	1.3	
20	Food and Kindred Products	575	308	200	8	268	89	26	47	0	35	18.2
2011	Meat Packing Plants	21	W	W	W	19	W	W	W	0	0	20.8
2033	Canned Fruits and Vegetables	53	28	20	0	26	15	W	0	0	W	26.1
2037	Frozen Fruits and Vegetables	Q	Q	Q	W	Q	0	0	0	0	W	0.0
2046	Wet Corn Milling	4	W	W	0	W	0	0	0	0	0	39.4
2051	Bread, Cake, and Related Products	13	13	0	0	5	0	0	W	0	0	62.0
2061	Cane Sugar, Except Refining	12	3	4	W	W	W	W	0	0	W	20.2
2062	Cane Sugar Refining	8	W	W	0	W	0	0	0	0	0	30.0
2063	Beet Sugar	13	10	W	0	10	W	0	0	0	0	5.0
2075	Soybean Oil Mills	13	12	0	W	12	5	0	W	0	W	1.0
2082	Malt Beverages	47	38	12	0	35	W	W	0	0	W	12.8
21	Tobacco Products	42	26	19	0	26	0	0	0	0	0	11.5
22	Textile Mill Products	441	245	139	W	234	60	13	21	0	W	25.0
23	Apparel and Other Textile Products	20	12	8	0	12	0	0	0	0	0	50.2
24	Lumber and Wood Products	83	Q	34	Q	W	Q	Q	Q	W	0	43.8
2421	Sawmills and Planing Mills, General	Q	Q	W	Q	Q	Q	Q	Q	W	0	45.2
2436	Softwood Veneer and Plywood	W	0	W	0	0	0	0	0	0	0	53.5
2493	Reconstituted Wood Products	Q	W	W	0	W	W	0	W	0	0	53.0
25	Furniture and Fixtures	43	Q	35	0	W	Q	W	0	0	0	34.1
2511	Wood Furniture, Except Upholstered	25	Q	18	0	0	Q	0	0	0	0	35.5
26	Paper and Allied Products	382	224	152	13	190	52	22	17	W	24	6.4
2611	Pulp Mills	26	12	15	0	10	W	W	0	0	W	11.3
2621	Paper Mills	153	84	75	3	65	22	9	3	0	9	6.0
2631	Paperboard Mills	101	74	40	7	66	20	12	8	W	12	3.4
27	Printing and Publishing	82	14	Q	0	14	5	0	6	0	0	26.2
28	Chemicals and Allied Products	340	253	93	6	221	81	10	22	W	13	11.2
2812	Alkalies and Chlorine	3	W	W	0	W	0	0	0	0	0	14.9
2813	Industrial Gases	0	0	0	0	0	0	0	0	0	0	0.0
2816	Inorganic Pigments	5	5	0	0	5	0	0	0	0	0	11.5
2819	Industrial Inorganic Chemicals, nec.	27	18	9	0	11	9	W	3	0	W	22.2
2821	Plastics Materials and Resins	49	42	8	0	39	7	W	W	0	0	15.1
2822	Synthetic Rubber	6	6	0	0	6	3	0	3	0	0	26.4
2823	Cellulosic Manmade Fibers	0	0	0	0	0	0	0	0	0	0	0.0
2824	Organic Fibers, Noncellulosic	23	22	W	W	19	7	W	W	0	0	7.5
2861	Gum and Wood Chemicals	W	W	0	0	W	0	0	0	0	0	17.2
2865	Cyclic Crudes and Intermediates	39	30	7	0	25	14	0	W	0	W	16.8
2869	Industrial Organic Chemicals, nec.	40	29	17	0	29	4	0	4	0	7	29.7
2873	Nitrogenous Fertilizers	0	0	0	0	0	0	0	0	0	0	0.0
2874	Phosphatic Fertilizers	5	3	4	0	W	W	W	0	W	0	7.2
2895	Carbon Black	4	0	4	0	0	0	0	0	0	0	16.1
29	Petroleum and Coal Products	117	76	43	W	74	25	W	43	0	3	18.5
2911	Petroleum Refining	72	52	29	W	49	9	W	29	0	3	5.7
30	Rubber and Misc. Plastics Products	208	151	59	8	148	26	W	12	0	Q	21.3
3011	Tires and Inner Tubes	32	32	W	3	32	4	0	5	0	W	15.5
308	Miscellaneous Plastics Products, nec.	114	80	41	3	78	16	W	5	0	Q	29.9
31	Leather and Leather Products	54	Q	20	0	Q	0	0	0	0	0	42.2
32	Stone, Clay and Glass Products	76	36	40	0	36	8	10	0	4	3	20.1
3211	Flat Glass	W	0	W	0	0	0	0	0	0	0	33.5
3221	Glass Containers	11	W	W	0	10	0	0	0	0	0	13.8
3229	Pressed and Blown Glass, nec.	W	0	W	0	0	0	0	0	0	0	56.2
3241	Cement, Hydraulic	11	7	4	0	7	4	7	0	4	W	21.1
3274	Lime	3	W	W	0	W	0	W	0	0	W	53.1
3296	Mineral Wool	W	W	0	0	W	0	0	0	0	0	12.9
33	Primary Metal Industries	88	51	21	W	45	9	3	7	3	W	15.3
331	Blast Furnace and Basic Steel Products	43	27	9	W	24	W	3	4	3	W	14.7
3312	Blast Furnaces and Steel Mills	26	18	9	W	17	W	3	3	W	W	12.4
3313	Electrometallurgical Products	0	0	0	0	0	0	0	0	0	0	0.0
3321	Gray and Ductile Iron Foundries	Q	Q	W	0	Q	0	0	0	0	0	60.8
3331	Primary Copper	W	W	W	0	W	0	0	0	0	0	1.4
3334	Primary Aluminum	W	W	0	0	W	0	0	0	0	0	14.4
3339	Primary Nonferrous Metals, nec.	W	W	0	0	W	0	0	0	0	0	47.4
3353	Aluminum Sheet, Plate, and Foil	0	0	0	0	0	0	0	0	0	0	0.0
34	Fabricated Metal Products	72	40	32	3	37	Q	0	3	W	4	27.7
35	Industrial Machinery and Equipment	97	30	49	0	26	6	W	0	0	0	28.6
357	Computer and Office Equipment	W	0	W	0	0	0	0	0	0	0	53.5
36	Electronic and Other Electric Equipment	65	41	19	W	28	18	Q	14	W	W	27.9

See footnotes at end of table.

Table A33. Number of Establishments by Capability to Switch from Residual Fuel Oil to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2 (Continued)

		Residual Fuel Oil ^b			Alternative Types of Energy ^c							RSE Row Factors
		Total Consumed ^d	Switchable	Not Switchable	Electricity Receipts ^e	Natural Gas	Distillate Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other ^f	
SIC Code ^a	Industry Group and Industry											
RSE Column Factors:		0.7	0.7	0.8	1.4	0.7	1.0	1.2	1.2	1.3	1.3	
37	Transportation Equipment	46	26	24	W	23	5	W	W	0	W	24.0
3711	Motor Vehicles and Car Bodies	W	W	W	0	W	0	0	W	0	0	0.0
3714	Motor Vehicle Parts and Accessories	5	5	0	0	5	W	W	W	0	0	45.9
38	Instruments and Related Products	Q	22	13	W	21	9	W	0	0	W	25.6
3841	Surgical and Medical Instruments	3	0	0	0	0	0	0	0	0	0	55.7
39	Misc. Manufacturing Industries	161	17	Q	0	15	3	0	W	0	W	31.0
Total		3,080	1,656	1,107	103	1,496	464	150	246	Q	141	11.1

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

^b This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.

^c "Alternative Types of Energy" consist of those energy sources that could have been substituted for residual fuel oil during 1994. The quantities are expressed in thousands of barrels, and therefore represent the quantity of residual fuel oil that could have been displaced by the given alternative type of energy.

^d "Total Consumed" represents those quantities (Total Inputs) of residual fuel oil that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^e "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^f "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of residual fuel oil.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A34. Number of Establishments that Actually Switched Fuels from Residual Fuel Oil to Natural Gas, by Industry Group and Selected Industries, 1994

SIC Code ^a	Industry Group and Industry	Residual Fuel Oil Switchable to Natural Gas (1000 bbl)	Establishments					RSE Row Factors
			Total (counts)	Able to Switch		Actually Switched		
				(counts)	(percents)	(counts)	(percents)	
RSE Column Factors:		1.5	0.1	1.4	1.5	1.6	1.7	
20	Food and Kindred Products	2,279	14,698	268	1.8	213	1.4	6.2
2011	Meat Packing Plants	124	759	19	2.5	10	1.3	9.9
2033	Canned Fruits and Vegetables	102	531	26	5.0	26	5.0	13.0
2037	Frozen Fruits and Vegetables	42	232	Q	1.7	W	W	14.4
2046	Wet Corn Milling	143	58	W	W	W	W	20.3
2051	Bread, Cake, and Related Products	2	1,303	5	0.4	5	0.4	22.8
2061	Cane Sugar, Except Refining	W	43	W	W	0	0.0	16.1
2062	Cane Sugar Refining	123	20	W	W	W	W	17.6
2063	Beet Sugar	247	41	10	25.0	7	16.7	3.1
2075	Soybean Oil Mills	136	95	12	12.2	7	7.3	1.0
2082	Malt Beverages	370	140	35	25.1	28	20.3	6.0
21	Tobacco Products	106	121	26	21.5	19	15.3	12.0
22	Textile Mill Products	884	4,428	234	5.3	147	3.3	10.6
23	Apparel and Other Textile Products	Q	18,019	12	Q	12	Q	20.9
24	Lumber and Wood Products	W	21,623	Q	Q	W	W	12.3
2421	Sawmills and Planing Mills, General	W	3,545	Q	Q	0	0.0	9.1
2436	Softwood Veneer and Plywood	0	182	0	0.0	0	0.0	9.1
2493	Reconstituted Wood Products	W	246	W	W	W	W	13.8
25	Furniture and Fixtures	4	7,691	W	W	0	0.0	20.3
2511	Wood Furniture, Except Upholstered	0	1,548	0	0.0	0	0.0	9.1
26	Paper and Allied Products	6,355	5,582	190	3.4	124	2.2	4.0
2611	Pulp Mills	567	55	10	18.8	7	12.5	8.5
2621	Paper Mills	1,301	310	65	21.0	40	12.8	3.5
2631	Paperboard Mills	3,989	219	66	30.0	45	20.5	2.1
27	Printing and Publishing	44	37,384	14	*	10	*	11.0
28	Chemicals and Allied Products	2,849	9,565	221	2.3	163	1.7	5.7
2812	Alkalies and Chlorine	W	44	W	W	0	0.0	9.0
2813	Industrial Gases	0	623	0	0.0	0	0.0	9.1
2816	Inorganic Pigments	141	81	5	6.6	3	3.3	7.4
2819	Industrial Inorganic Chemicals, nec.	260	568	11	1.9	8	1.4	8.6
2821	Plastics Materials and Resins	332	456	39	8.5	35	7.7	10.4
2822	Synthetic Rubber	49	63	6	10.3	6	10.3	12.2
2823	Cellulosic Manmade Fibers	0	11	0	0.0	0	0.0	9.1
2824	Organic Fibers, Noncellulosic	398	73	19	25.7	16	22.5	3.8
2861	Gum and Wood Chemicals	*	60	W	W	W	W	8.6
2865	Cyclic Crudes and Intermediates	514	187	25	13.6	18	9.7	8.1
2869	Industrial Organic Chemicals, nec.	511	631	29	4.6	17	2.7	12.9
2873	Nitrogenous Fertilizers	0	118	0	0.0	0	0.0	9.1
2874	Phosphatic Fertilizers	W	69	W	W	W	W	6.3
2895	Carbon Black	0	23	0	0.0	0	0.0	9.1
29	Petroleum and Coal Products	6,174	1,971	74	3.7	47	2.4	10.8
2911	Petroleum Refining	5,964	247	49	20.0	28	11.3	3.4
30	Rubber and Misc. Plastics Products	1,186	11,952	148	1.2	107	0.9	12.9
3011	Tires and Inner Tubes	718	112	32	28.5	27	24.5	7.5
308	Miscellaneous Plastics Products, nec.	243	9,967	78	0.8	66	Q	19.7
31	Leather and Leather Products	W	1,356	W	W	W	W	19.1
32	Stone, Clay and Glass Products	551	11,970	36	0.3	18	0.1	8.3
3211	Flat Glass	0	68	0	0.0	0	0.0	9.1
3221	Glass Containers	311	78	10	12.9	6	7.1	6.7
3229	Pressed and Blown Glass, nec.	0	163	0	0.0	0	0.0	9.1
3241	Cement, Hydraulic	123	190	7	3.7	5	2.8	13.7
3274	Lime	Q	84	W	W	W	W	25.9
3296	Mineral Wool	W	174	W	W	0	0.0	10.9
33	Primary Metal Industries	2,254	5,171	45	0.9	31	0.6	8.3
331	Blast Furnace and Basic Steel Products	2,179	981	24	2.5	17	1.7	6.8
3312	Blast Furnaces and Steel Mills	2,170	284	17	6.0	11	3.8	6.5
3313	Electrometallurgical Products	0	36	0	0.0	0	0.0	9.1
3321	Gray and Ductile Iron Foundries	Q	517	Q	Q	W	W	17.8
3331	Primary Copper	W	20	W	W	0	0.0	1.3
3334	Primary Aluminum	W	44	W	W	0	0.0	2.3
3339	Primary Nonferrous Metals, nec.	W	88	W	W	W	W	17.3
3353	Aluminum Sheet, Plate, and Foil	0	55	0	0.0	0	0.0	9.1
34	Fabricated Metal Products	352	26,262	37	0.1	24	0.1	16.0
35	Industrial Machinery and Equipment	173	33,837	26	0.1	18	0.1	14.0
357	Computer and Office Equipment	0	1,410	0	0.0	0	0.0	9.1
36	Electronic and Other Electric Equipment	155	11,264	28	0.3	20	0.2	10.7

See footnotes at end of table.

Table A34. Number of Establishments that Actually Switched Fuels from Residual Fuel Oil to Natural Gas, by Industry Group and Selected Industries, 1994 (Continued)

		Residual Fuel Oil Switchable to Natural Gas (1000 bbl)	Establishments					RSE Row Factors
SIC Code ^a	Industry Group and Industry		Total (counts)	Able to Switch		Actually Switched		
				(counts)	(percents)	(counts)	(percents)	
RSE Column Factors:		1.5	0.1	1.4	1.5	1.6	1.7	
37	Transportation Equipment	665	7,240	23	0.3	16	0.2	10.5
3711	Motor Vehicles and Car Bodies	66	322	W	W	W	W	17.1
3714	Motor Vehicle Parts and Accessories	38	2,062	5	0.2	5	0.2	18.4
38	Instruments and Related Products	176	7,071	21	0.3	11	0.2	10.4
3841	Surgical and Medical Instruments	0	878	0	0.0	0	0.0	9.1
39	Misc. Manufacturing Industries	75	9,994	15	0.1	15	0.1	13.8
Total		24,382	247,199	1,496	0.6	997	0.4	3.8

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A35. Percent of Establishments by Primary Reasons for Actually Switching Fuels from Residual Fuel Oil to Natural Gas, by Industry Group and Selected Industries, 1994

SIC Code ^a	Industry Group and Industry	Establishments that Actually Switched ^b (counts)	Reasons					RSE Row Factors
			Supply Shortage or Curtailment of Fuel	Down-Time Caused by Maintenance	Natural Gas Was Less Expensive	Environmental Restriction on Emissions or Waste	Other	
	RSE Column Factors:	0.7	1.6	1.3	0.4	1.2	1.6	
20	Food and Kindred Products	213	17.7	14.4	80.0	17.8	6.0	15.5
2011	<i>Meat Packing Plants</i>	10	0.0	0.0	80.0	0.0	W	19.4
2033	<i>Canned Fruits and Vegetables</i>	26	34.8	50.0	75.3	0.0	W	25.7
2037	<i>Frozen Fruits and Vegetables</i>	W	0.0	W	W	W	0.0	42.2
2046	<i>Wet Corn Milling</i>	W	0.0	0.0	W	W	0.0	48.4
2051	<i>Bread, Cake, and Related Products</i>	5	0.0	0.0	W	0.0	W	68.8
2061	<i>Cane Sugar, Except Refining</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
2062	<i>Cane Sugar Refining</i>	W	0.0	0.0	W	0.0	0.0	39.6
2063	<i>Beet Sugar</i>	7	W	0.0	100.0	W	0.0	6.7
2075	<i>Soybean Oil Mills</i>	7	0.0	0.0	66.7	W	W	1.5
2082	<i>Malt Beverages</i>	28	W	W	66.0	38.5	W	13.2
21	Tobacco Products	19	0.0	W	74.4	0.0	W	30.6
22	Textile Mill Products	147	Q	2.8	79.1	13.2	Q	30.0
23	Apparel and Other Textile Products	12	0.0	0.0	100.0	0.0	0.0	55.8
24	Lumber and Wood Products	W	0.0	0.0	W	0.0	0.0	69.0
2421	<i>Sawmills and Planing Mills, General</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
2436	<i>Softwood Veneer and Plywood</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
2493	<i>Reconstituted Wood Products</i>	W	0.0	0.0	W	0.0	0.0	69.0
25	Furniture and Fixtures	0	0.0	0.0	0.0	0.0	0.0	0.0
2511	<i>Wood Furniture, Except Upholstered</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
26	Paper and Allied Products	124	15.6	19.5	79.4	12.6	12.3	10.3
2611	<i>Pulp Mills</i>	7	0.0	0.0	75.0	0.0	W	19.0
2621	<i>Paper Mills</i>	40	6.5	16.1	71.0	12.9	12.9	9.2
2631	<i>Paperboard Mills</i>	45	23.1	25.6	87.2	12.8	10.3	3.4
27	Printing and Publishing	10	W	W	100.0	0.0	0.0	26.5
28	Chemicals and Allied Products	163	10.4	17.6	85.4	12.3	4.7	12.0
2812	<i>Alkalies and Chlorine</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
2813	<i>Industrial Gases</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
2816	<i>Inorganic Pigments</i>	3	0.0	0.0	100.0	0.0	0.0	16.1
2819	<i>Industrial Inorganic Chemicals, nec.</i>	8	W	40.0	60.0	0.0	0.0	17.3
2821	<i>Plastics Materials and Resins</i>	35	W	29.7	90.4	W	W	19.9
2822	<i>Synthetic Rubber</i>	6	0.0	W	100.0	0.0	0.0	28.8
2823	<i>Cellulosic Manmade Fibers</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
2824	<i>Organic Fibers, Noncellulosic</i>	16	0.0	W	100.0	W	0.0	8.2
2861	<i>Gum and Wood Chemicals</i>	W	W	0.0	0.0	0.0	0.0	17.6
2865	<i>Cyclic Crudes and Intermediates</i>	18	W	0.0	90.4	19.2	0.0	16.5
2869	<i>Industrial Organic Chemicals, nec.</i>	17	46.5	28.9	68.2	29.7	16.6	26.3
2873	<i>Nitrogenous Fertilizers</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
2874	<i>Phosphatic Fertilizers</i>	W	0.0	0.0	W	0.0	0.0	11.7
2895	<i>Carbon Black</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
29	Petroleum and Coal Products	47	11.4	11.5	77.1	25.8	8.6	24.9
2911	<i>Petroleum Refining</i>	28	19.0	14.3	61.9	42.9	14.3	6.7
30	Rubber and Misc. Plastics Products	107	9.6	16.5	85.1	4.2	Q	30.6
3011	<i>Tires and Inner Tubes</i>	27	16.3	16.3	89.3	10.7	10.7	14.4
308	<i>Miscellaneous Plastics Products, nec.</i>	66	W	Q	85.1	W	W	38.1
31	Leather and Leather Products	W	0.0	0.0	0.0	0.0	W	61.6
32	Stone, Clay and Glass Products	18	W	34.5	92.4	0.0	0.0	17.4
3211	<i>Flat Glass</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
3221	<i>Glass Containers</i>	6	0.0	0.0	100.0	0.0	0.0	14.7
3229	<i>Pressed and Blown Glass, nec.</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
3241	<i>Cement, Hydraulic</i>	5	W	66.7	100.0	0.0	0.0	20.3
3274	<i>Lime</i>	W	0.0	W	0.0	0.0	0.0	71.9
3296	<i>Mineral Wool</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
33	Primary Metal Industries	31	9.5	8.6	86.4	0.0	W	17.3
331	<i>Blast Furnace and Basic Steel Products</i>	17	W	W	81.5	0.0	W	17.4
3312	<i>Blast Furnaces and Steel Mills</i>	11	0.0	W	71.4	0.0	W	16.7
3313	<i>Electrometallurgical Products</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
3321	<i>Gray and Ductile Iron Foundries</i>	W	0.0	0.0	W	0.0	0.0	0.0
3331	<i>Primary Copper</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
3334	<i>Primary Aluminum</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
3339	<i>Primary Nonferrous Metals, nec.</i>	W	0.0	W	0.0	0.0	0.0	48.4
3353	<i>Aluminum Sheet, Plate, and Foil</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
34	Fabricated Metal Products	24	W	34.0	65.3	12.7	W	37.6
35	Industrial Machinery and Equipment	18	0.0	0.0	86.3	43.4	0.0	32.1
357	<i>Computer and Office Equipment</i>	0	0.0	0.0	0.0	0.0	0.0	0.0
36	Electronic and Other Electric Equipment	20	14.9	W	92.5	29.8	0.0	20.5

See footnotes at end of table.

Table A35. Percent of Establishments by Primary Reasons for Actually Switching Fuels from Residual Fuel Oil to Natural Gas, by Industry Group and Selected Industries, 1994 (Continued)

			Reasons					RSE Row Factors
			Supply Shortage or Curtailment of Fuel	Down-Time Caused by Maintenance	Natural Gas Was Less Expensive	Environmental Restriction on Emissions or Waste	Other	
SIC Code ^a	Industry Group and Industry	Establishments that Actually Switched ^b (counts)						
RSE Column Factors:		0.7	1.6	1.3	0.4	1.2	1.6	
37	Transportation Equipment	16	W	W	96.2	33.7	0.0	21.1
3711	Motor Vehicles and Car Bodies	W	W	0.0	W	W	0.0	44.4
3714	Motor Vehicle Parts and Accessories	5	0.0	0.0	100.0	0.0	0.0	47.0
38	Instruments and Related Products	11	W	25.0	87.5	0.0	0.0	21.0
3841	Surgical and Medical Instruments	0	0.0	0.0	0.0	0.0	0.0	0.0
39	Misc. Manufacturing Industries	15	28.0	W	46.9	0.0	W	37.5
Total		997	12.7	14.4	81.6	13.2	12.0	9.7

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

^b This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • Sum of component percents may exceed 100 percent because multiple responses, if applicable, were accepted.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A36. Percent of Establishments by Levels of Price Difference between Residual Fuel Oil and Less Expensive Natural Gas that Would Cause Fuel Switching from Residual Fuel Oil to Natural Gas, by Industry Group and Selected Industries, 1994

SIC Code ^a Industry Group and Industry		Estab- lishments Able to Switch ^b (counts)	Levels of Price Difference ^c between Residual Fuel Oil and Less Expensive Natural Gas										Would Not Switch Due to Price	Estimate Cannot Be Provided	Would Switch to More Expensive Substitute	RSE Row Factors
			1 - 5 Percent	6 - 10 Percent	11 - 15 Percent	16 - 20 Percent	21 - 30 Percent	31 - 40 Percent	41 - 50 Percent	Over 50 Percent						
RSE Column Factors:		0.4	0.7	0.9	1.1	1.1	1.4	1.4	2.4	0.0	1.0	0.6	1.1			
20	Food and Kindred Products	268	20.8	17.0	9.0	Q	0.0	0.0	Q	0.0	3.8	35.9	9.2	22.2		
2011	Meat Packing Plants	19	20.9	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	31.4	W	28.8		
2033	Canned Fruits and Vegetables	26	28.8	55.9	W	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	35.5		
2037	Frozen Fruits and Vegetables	Q	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	25.6		
2046	Wet Corn Milling	W	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.6		
2051	Bread, Cake, and Related Products	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	0.0	67.6		
2061	Cane Sugar, Except Refining	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	64.7		
2062	Cane Sugar Refining	W	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	60.2		
2063	Beet Sugar	10	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	6.3		
2075	Soybean Oil Mills	12	W	0.0	0.0	W	0.0	0.0	0.0	0.0	W	60.0	W	2.2		
2082	Malt Beverages	35	0.0	19.5	0.0	0.0	0.0	0.0	0.0	0.0	W	W	45.5	31.2		
21	Tobacco Products	26	W	W	0.0	0.0	0.0	W	0.0	0.0	W	W	0.0	37.3		
22	Textile Mill Products	234	44.0	6.1	Q	0.0	W	0.0	0.0	0.0	W	35.4	6.0	32.2		
23	Apparel and Other Textile Products	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	84.7		
24	Lumber and Wood Products	Q	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	0.0	41.7		
2421	Sawmills and Planing Mills, General	Q	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	0.0	39.7		
2436	Softwood Veneer and Plywood	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
2493	Reconstituted Wood Products	W	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	104.8		
25	Furniture and Fixtures	W	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78.0		
2511	Wood Furniture, Except Upholstered	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
26	Paper and Allied Products	190	31.0	12.4	2.6	3.2	2.6	W	W	0.0	3.3	38.5	4.9	12.8		
2611	Pulp Mills	10	W	0.0	0.0	0.0	0.0	W	0.0	0.0	0.0	50.0	W	24.5		
2621	Paper Mills	65	29.4	5.9	3.9	5.9	W	0.0	W	0.0	7.8	39.2	3.9	12.9		
2631	Paperboard Mills	66	40.3	10.5	W	W	W	0.0	0.0	0.0	W	33.4	W	7.2		
27	Printing and Publishing	14	34.6	0.0	0.0	W	0.0	0.0	0.0	0.0	0.0	W	25.8	35.9		
28	Chemicals and Allied Products	221	29.3	17.4	2.9	W	0.0	W	0.0	0.0	5.1	30.4	7.1	19.4		
2812	Alkalies and Chlorine	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	26.8		
2813	Industrial Gases	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
2816	Inorganic Pigments	5	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	15.0		
2819	Industrial Inorganic Chemicals, nec.	11	42.9	W	0.0	0.0	0.0	0.0	0.0	0.0	W	W	W	26.1		
2821	Plastics Materials and Resins	39	28.0	30.4	9.5	0.0	0.0	0.0	0.0	0.0	0.0	19.0	13.1	36.6		
2822	Synthetic Rubber	6	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	34.2		
2823	Cellulosic Manmade Fibers	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
2824	Organic Fibers, Noncellulosic	19	56.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	18.8	W	10.1		
2861	Gum and Wood Chemicals	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	26.8		
2865	Cyclic Crudes and Intermediates	25	49.2	13.6	0.0	0.0	0.0	0.0	0.0	0.0	13.1	24.0	0.0	24.6		
2869	Industrial Organic Chemicals, nec.	29	27.0	33.2	W	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	46.4		
2873	Nitrogenous Fertilizers	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
2874	Phosphatic Fertilizers	W	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.8		
2895	Carbon Black	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
29	Petroleum and Coal Products	74	19.9	3.6	7.2	3.6	0.0	0.0	0.0	0.0	14.5	25.9	Q	29.0		
2911	Petroleum Refining	49	29.7	5.4	8.1	5.4	0.0	0.0	0.0	0.0	21.6	24.3	5.4	9.9		
30	Rubber and Misc. Plastics Products	148	26.1	10.5	W	0.0	0.0	W	0.0	W	0.0	52.6	W	41.5		
3011	Tires and Inner Tubes	32	44.3	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.4	0.0	19.6		
308	Miscellaneous Plastics Products, nec.	78	Q	Q	0.0	0.0	0.0	W	0.0	0.0	0.0	63.5	W	65.2		
31	Leather and Leather Products	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	W	0.0	0.0		
32	Stone, Clay and Glass Products	36	18.1	19.0	8.2	0.0	W	0.0	0.0	0.0	0.0	W	0.0	27.5		
3211	Flat Glass	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
3221	Glass Containers	10	0.0	55.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.4	0.0	13.3		
3229	Pressed and Blown Glass, nec.	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
3241	Cement, Hydraulic	7	W	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	40.0		
3274	Lime	W	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	109.3		
3296	Mineral Wool	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	20.1		
33	Primary Metal Industries	45	21.8	20.1	W	0.0	0.0	0.0	0.0	0.0	W	29.7	9.3	20.5		
331	Blast Furnace and Basic Steel Products	24	31.2	31.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	19.2		
3312	Blast Furnaces and Steel Mills	17	36.4	36.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	19.7		
3313	Electrometallurgical Products	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
3321	Gray and Ductile Iron Foundries	Q	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	0.0	51.1		
3331	Primary Copper	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2.2		
3334	Primary Aluminum	W	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	22.3		
3339	Primary Nonferrous Metals, nec.	W	W	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
3353	Aluminum Sheet, Plate, and Foil	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
34	Fabricated Metal Products	37	33.7	W	0.0	0.0	0.0	0.0	0.0	0.0	W	54.8	W	49.0		
35	Industrial Machinery and Equipment	26	17.0	32.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.5	15.3	42.8		
357	Computer and Office Equipment	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
36	Electronic and Other Electric Equipment	28	37.8	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.0	Q	34.8		

See footnotes at end of table.

Table A36. Percent of Establishments by Levels of Price Difference between Residual Fuel Oil and Less Expensive Natural Gas that Would Cause Fuel Switching from Residual Fuel Oil to Natural Gas, by Industry Group and Selected Industries, 1994 (Continued)

		Estab- lishments Able to Switch ^b (counts)	Levels of Price Difference ^c between Residual Fuel Oil and Less Expensive Natural Gas											RSE Row Factors
			1 - 5 Percent	6 - 10 Percent	11 - 15 Percent	16 - 20 Percent	21 - 30 Percent	31 - 40 Percent	41 - 50 Percent	Over 50 Percent	Would Not Switch Due to Price	Estimate Cannot Be Provided	Would Switch to More Expensive Substitute	
SIC Code ^a	Industry Group and Industry													
RSE Column Factors:		0.4	0.7	0.9	1.1	1.1	1.4	1.4	2.4	0.0	1.0	0.6	1.1	
37	Transportation Equipment	23	33.1	W	W	W	0.0	0.0	0.0	0.0	0.0	28.6	18.0	29.8
3711	Motor Vehicles and Car Bodies	W	W	0.0	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.1
3714	Motor Vehicle Parts and Accessories	5	W	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	62.4
38	Instruments and Related Products	21	54.6	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.4	W	33.0
3841	Surgical and Medical Instruments	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	Misc. Manufacturing Industries	15	W	W	0.0	0.0	0.0	0.0	0.0	0.0	W	53.1	W	49.3
Total		1,496	28.0	12.0	4.0	2.1	0.5	0.5	0.6	Q	6.3	37.0	7.3	15.6

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

^b This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.

^c These levels of price difference were guesstimates at which establishments perceived that they would switch. These levels were not actual values at which switching occurred. The percentage of price difference is computed as the quantity of (current fuel price minus alternative fuel price) divided by the current fuel price, expressed as a percent.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • Establishment percents may not equal 100 percent because of unknown and/or unreported fuel-switching guesstimate.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A37. Capability to Switch from Electricity to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1
(Estimates in Million Kilowatthours)

SIC Code ^a	Industry Group and Industry	Electricity Receipts			Alternative Types of Energy ^b							RSE Row Factors
		Total Receipts ^c	Switchable	Not Switchable	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other ^d	
RSE Column Factors:		0.2	0.8	0.3	1.0	1.2	1.4	1.4	1.4	3.8	1.4	
20	Food and Kindred Products	59,743	1,631	52,358	492	566	Q	8	111	Q	273	17.6
2011	Meat Packing Plants	3,924	50	3,617	0	50	0	0	0	0	0	37.2
2033	Canned Fruits and Vegetables	1,490	24	1,385	12	19	0	0	Q	0	0	32.2
2037	Frozen Fruits and Vegetables	2,901	9	2,768	3	9	3	0	3	0	0	30.8
2046	Wet Corn Milling	5,731	0	5,721	0	0	0	0	0	0	0	43.1
2051	Bread, Cake, and Related Products	2,436	*	2,277	0	0	0	0	0	0	0	31.4
2061	Cane Sugar, Except Refining	156	W	W	2	W	0	W	0	0	0	25.4
2062	Cane Sugar Refining	128	40	88	36	13	8	0	0	0	0	45.5
2063	Beet Sugar	437	0	436	0	0	0	0	0	0	0	11.8
2075	Soybean Oil Mills	1,866	W	1,727	0	W	0	W	0	0	0	1.6
2082	Malt Beverages	2,323	W	W	0	W	0	0	0	0	W	6.2
21	Tobacco Products	1,259	7	1,252	0	7	0	0	0	0	0	46.2
22	Textile Mill Products	32,692	77	31,675	Q	15	7	Q	7	0	Q	27.2
23	Apparel and Other Textile Products	7,748	Q	7,029	Q	*	0	Q	Q	0	0	45.0
24	Lumber and Wood Products	20,832	338	18,111	180	77	145	3	169	*	236	21.7
2421	Sawmills and Planing Mills, General	7,148	184	6,024	141	36	W	*	130	*	142	27.8
2436	Softwood Veneer and Plywood	2,766	Q	2,633	0	W	W	0	W	0	Q	23.2
2493	Reconstituted Wood Products	4,596	Q	4,359	Q	0	0	0	Q	0	Q	27.4
25	Furniture and Fixtures	6,678	96	5,991	Q	29	Q	0	16	0	20	28.8
2511	Wood Furniture, Except Upholstered	2,184	Q	2,050	Q	0	0	0	0	0	0	33.3
26	Paper and Allied Products	72,248	2,410	67,983	1,286	446	926	1,065	Q	W	818	8.7
2611	Pulp Mills	2,562	63	2,499	W	W	0	W	0	0	25	26.5
2621	Paper Mills	37,907	1,086	36,616	W	309	495	519	0	W	360	12.1
2631	Paperboard Mills	16,399	1,185	15,102	806	W	423	497	0	0	W	6.9
27	Printing and Publishing	17,410	306	15,494	92	105	Q	Q	Q	Q	Q	21.1
28	Chemicals and Allied Products	160,225	1,703	153,304	828	557	226	258	67	0	90	13.3
2812	Alkalies and Chlorine	13,703	0	13,703	0	0	0	0	0	0	0	15.7
2813	Industrial Gases	23,525	38	23,199	38	0	0	0	0	0	0	35.6
2816	Inorganic Pigments	2,393	W	2,345	*	W	0	*	*	0	0	21.2
2819	Industrial Inorganic Chemicals, nec.	42,861	298	42,077	116	72	Q	0	Q	0	W	29.7
2821	Plastics Materials and Resins	16,976	276	15,561	W	63	W	0	W	0	W	18.8
2822	Synthetic Rubber	2,476	20	2,452	0	20	0	0	0	0	0	47.9
2823	Cellulosic Manmade Fibers	437	W	W	W	W	0	W	0	0	0	1.5
2824	Organic Fibers, Noncellulosic	7,435	139	7,101	W	0	W	W	0	0	0	13.4
2861	Gum and Wood Chemicals	211	*	192	0	0	0	0	0	0	*	14.4
2865	Cyclic Crudes and Intermediates	4,794	Q	4,592	1	Q	1	0	0	0	1	31.3
2869	Industrial Organic Chemicals, nec.	22,537	290	20,546	166	158	W	112	0	0	32	14.9
2873	Nitrogenous Fertilizers	3,831	135	3,582	135	32	1	0	1	0	0	27.9
2874	Phosphatic Fertilizers	2,185	W	2,056	W	W	0	0	W	0	0	11.4
2895	Carbon Black	571	0	526	0	0	0	0	0	0	0	29.3
29	Petroleum and Coal Products	37,379	1,913	34,994	1,369	380	533	8	489	0	436	7.8
2911	Petroleum Refining	34,770	1,824	32,675	1,352	330	533	W	476	0	414	8.0
30	Rubber and Misc. Plastics Products	43,777	670	39,635	165	284	88	Q	119	Q	99	22.3
3011	Tires and Inner Tubes	4,664	2	4,567	2	1	0	0	0	0	0	26.8
308	Miscellaneous Plastics Products, nec.	33,989	572	30,437	157	215	88	Q	119	Q	99	24.9
31	Leather and Leather Products	827	Q	757	Q	Q	Q	*	Q	*	Q	41.1
32	Stone, Clay and Glass Products	36,026	403	34,458	265	169	35	32	223	29	35	14.9
3211	Flat Glass	1,468	1	1,467	0	0	0	0	0	0	1	39.4
3221	Glass Containers	4,268	50	4,119	50	W	0	0	W	0	0	15.8
3229	Pressed and Blown Glass, nec.	3,233	56	3,171	21	W	3	Q	16	Q	Q	14.9
3241	Cement, Hydraulic	10,789	9	10,658	3	9	3	3	0	0	0	29.9
3274	Lime	1,151	Q	1,086	0	Q	0	0	0	0	0	50.1
3296	Mineral Wool	3,401	W	W	W	0	0	0	W	0	0	24.4
33	Primary Metal Industries	149,593	1,977	143,622	1,602	551	1,331	W	235	Q	Q	13.5
331	Blast Furnace and Basic Steel Products	55,214	1,560	51,995	1,426	396	1,274	W	141	0	W	18.0
3312	Blast Furnaces and Steel Mills	45,463	1,470	42,971	1,391	348	1,273	W	114	0	W	17.8
3313	Electrometallurgical Products	4,797	Q	4,416	Q	Q	Q	0	*	0	0	135.1
3321	Gray and Ductile Iron Foundries	8,820	Q	8,437	Q	W	Q	0	Q	Q	0	27.4
3331	Primary Copper	1,581	W	W	0	W	0	0	0	0	0	2.0
3334	Primary Aluminum	56,657	0	56,623	0	0	0	0	0	0	0	3.9
3339	Primary Nonferrous Metals, nec.	4,205	*	4,132	*	0	0	0	*	0	0	30.3
3353	Aluminum Sheet, Plate, and Foil	4,835	W	4,562	W	0	0	0	*	0	0	14.1
34	Fabricated Metal Products	33,900	627	30,288	262	224	Q	W	Q	W	71	22.5
35	Industrial Machinery and Equipment	32,044	818	28,112	241	384	115	144	191	Q	172	24.0
357	Computer and Office Equipment	4,179	23	3,786	Q	Q	Q	0	Q	0	*	46.9
36	Electronic and Other Electric Equipment	33,152	1,052	30,449	62	503	Q	Q	Q	0	38	24.5

See footnotes at end of table.

Table A37. Capability to Switch from Electricity to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1 (Continued)
(Estimates in Million Kilowatthours)

SIC Code ^a Industry Group and Industry		Electricity Receipts			Alternative Types of Energy ^b							RSE Row Factors
		Total Receipts ^c	Switchable	Not Switchable	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other ^d	
RSE Column Factors:		0.2	0.8	0.3	1.0	1.2	1.4	1.4	1.4	3.8	1.4	
37	Transportation Equipment	38,998	530	37,160	86	108	31	Q	20	Q	103	21.2
3711	Motor Vehicles and Car Bodies	8,863	Q	8,582	Q	0	0	0	Q	0	0	39.2
3714	Motor Vehicle Parts and Accessories	13,552	266	12,847	53	Q	Q	Q	Q	Q	Q	29.7
38	Instruments and Related Products	13,494	571	12,315	171	196	142	19	Q	Q	40	30.8
3841	Surgical and Medical Instruments	1,347	Q	1,250	3	3	0	0	3	0	0	33.1
39	Misc. Manufacturing Industries	5,575	115	5,255	Q	Q	Q	Q	Q	Q	Q	32.2
Total		803,603	15,309	750,244	7,244	4,633	3,810	1,933	1,864	229	2,511	5.7
Census Region and Division												
Northeast		96,282	2,484	89,123	933	1,085	1,007	313	420	110	523	10.4
New England		22,262	634	20,235	131	370	370	231	75	Q	262	15.8
Middle Atlantic		74,020	1,850	68,888	802	715	637	81	345	Q	260	13.5
Midwest		239,503	5,062	221,381	2,524	1,659	1,626	492	688	Q	431	11.4
East North Central		186,425	3,971	172,482	2,298	1,260	1,540	366	562	Q	305	13.6
West North Central		53,077	1,091	48,899	226	399	87	126	127	Q	126	13.5
South		346,626	5,879	325,098	2,942	1,246	913	1,068	318	21	1,090	7.4
South Atlantic		133,150	2,399	124,793	758	606	485	639	84	Q	447	9.6
East South Central		99,839	1,062	94,808	618	210	197	170	52	Q	222	16.0
West South Central		113,636	2,418	105,497	1,566	430	230	259	182	Q	421	9.1
West		121,193	1,884	114,642	844	643	264	61	438	Q	467	10.5
Mountain		31,616	580	30,393	285	285	46	50	151	Q	50	13.4
Pacific		89,577	1,304	84,249	560	357	219	Q	287	Q	418	11.9
Total		803,603	15,309	750,244	7,244	4,633	3,810	1,933	1,864	229	2,511	5.7
Value of Shipments and Receipts ^e (million dollars)												
Under 20		122,599	2,524	106,720	874	778	279	231	402	W	410	15.3
20-49		122,772	1,736	112,211	556	752	111	52	266	19	141	15.3
50-99		112,072	1,543	104,462	519	784	205	26	227	0	261	13.1
100-249		165,001	2,772	157,262	1,366	574	654	464	390	0	481	8.8
250-499		112,454	2,019	108,494	977	914	866	604	165	W	385	8.3
500 and Over		168,706	4,715	161,094	2,952	829	1,695	556	415	0	833	9.1
Total		803,603	15,309	750,244	7,244	4,633	3,810	1,933	1,864	229	2,511	5.7
Employment Size ^e												
Under 50		63,443	986	55,697	330	330	104	121	159	76	203	19.6
50-99		59,836	1,234	52,781	439	365	114	Q	145	Q	106	20.2
100-249		153,862	2,322	142,008	844	1,064	191	134	434	W	280	15.1
250-499		148,818	2,408	138,511	1,233	696	565	150	505	0	449	10.3
500-999		168,201	3,169	160,132	1,789	888	748	641	375	0	440	7.5
1,000 and Over		209,445	5,190	201,115	2,609	1,289	2,089	857	246	W	1,033	9.0
Total		803,603	15,309	750,244	7,244	4,633	3,810	1,933	1,864	229	2,511	5.7

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

^b "Alternative Types of Energy" consist of those energy sources that could have been substituted for electricity receipts during 1994. The quantities are expressed in millions of kilowatthours, and therefore represent the quantity of electricity that could have been displaced by the given alternative type of energy.

^c "Total Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^d "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of electricity.

^e Value of Shipments and Receipts and Employment Size categories were supplied by the Bureau of the Census. See Appendix B.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A37. Number of Establishments by Capability to Switch from Electricity to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2

SIC Code ^a Industry Group and Industry		Electricity Receipts ^b			Alternative Types of Energy ^c							RSE Row Factors
		Total Receipts ^d	Switchable	Not Switchable	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other ^e	
RSE Column Factors:		0.1	1.3	0.2	1.4	1.6	1.5	1.4	1.9	2.9	1.9	
20	Food and Kindred Products	14,637	451	11,623	97	133	21	8	38	W	Q	18.9
2011	Meat Packing Plants	759	19	553	0	19	0	0	0	0	0	26.6
2033	Canned Fruits and Vegetables	531	24	408	W	7	0	0	W	0	0	23.9
2037	Frozen Fruits and Vegetables	231	W	226	W	W	W	0	W	0	0	11.5
2046	Wet Corn Milling	58	0	48	0	0	0	0	0	0	0	14.1
2051	Bread, Cake, and Related Products	1,303	W	1,042	0	0	0	0	0	0	0	27.1
2061	Cane Sugar, Except Refining	43	3	35	W	W	0	W	0	0	0	14.4
2062	Cane Sugar Refining	20	6	12	5	W	W	0	0	0	0	19.2
2063	Beet Sugar	41	0	40	0	0	0	0	0	0	0	8.2
2075	Soybean Oil Mills	92	3	81	0	W	0	W	0	0	0	1.9
2082	Malt Beverages	140	5	140	0	W	0	0	0	0	W	6.8
21	Tobacco Products	118	W	W	0	W	0	0	0	0	0	9.3
22	Textile Mill Products	4,427	W	W	Q	Q	W	W	Q	0	3	19.9
23	Apparel and Other Textile Products	17,754	105	14,931	66	W	0	W	59	0	0	19.9
24	Lumber and Wood Products	18,849	164	14,277	115	80	41	Q	44	W	87	22.8
2421	Sawmills and Planing Mills, General	3,191	79	2,738	Q	Q	W	W	W	W	Q	28.0
2436	Softwood Veneer and Plywood	182	5	175	0	W	W	0	W	0	5	8.9
2493	Reconstituted Wood Products	246	Q	233	W	0	0	0	W	0	W	16.3
25	Furniture and Fixtures	7,535	Q	6,052	Q	5	W	0	10	0	4	25.2
2511	Wood Furniture, Except Upholstered	1,543	W	1,359	W	0	0	0	0	0	0	18.3
26	Paper and Allied Products	5,547	106	4,557	39	18	31	25	4	W	38	11.2
2611	Pulp Mills	55	3	55	W	W	0	W	0	0	W	10.5
2621	Paper Mills	310	28	291	9	6	11	13	0	W	6	6.3
2631	Paperboard Mills	219	23	204	17	5	13	8	0	0	3	4.3
27	Printing and Publishing	37,335	457	31,031	203	52	Q	32	Q	W	4	18.5
28	Chemicals and Allied Products	9,553	279	8,588	174	124	14	14	38	0	26	14.2
2812	Alkalies and Chlorine	44	0	44	0	0	0	0	0	0	0	8.2
2813	Industrial Gases	617	W	607	W	0	0	0	0	0	0	11.5
2816	Inorganic Pigments	81	3	74	W	3	0	W	W	0	0	8.8
2819	Industrial Inorganic Chemicals, nec.	566	20	472	7	15	W	0	W	0	W	18.4
2821	Plastics Materials and Resins	456	12	393	5	7	W	0	W	0	W	11.0
2822	Synthetic Rubber	63	W	W	0	W	0	0	0	0	0	15.5
2823	Cellulosic Manmade Fibers	11	4	11	W	W	0	4	0	0	0	1.6
2824	Organic Fibers, Noncellulosic	73	5	65	W	0	W	4	0	0	0	8.0
2861	Gum and Wood Chemicals	60	W	49	0	0	0	0	0	0	W	7.9
2865	Cyclic Crudes and Intermediates	187	18	164	W	W	W	0	0	0	W	16.5
2869	Industrial Organic Chemicals, nec.	630	17	581	9	4	W	4	0	0	W	11.6
2873	Nitrogenous Fertilizers	117	5	113	5	W	W	0	W	0	0	13.5
2874	Phosphatic Fertilizers	68	W	55	W	W	0	0	W	0	0	6.1
2895	Carbon Black	23	0	20	0	0	0	0	0	0	0	11.5
29	Petroleum and Coal Products	1,959	171	1,704	89	89	19	7	76	0	Q	12.9
2911	Petroleum Refining	244	64	232	48	15	19	W	25	0	13	3.6
30	Rubber and Misc. Plastics Products	11,942	361	10,543	78	Q	Q	Q	Q	W	42	16.6
3011	Tires and Inner Tubes	112	W	106	W	W	0	0	0	0	0	17.2
308	Miscellaneous Plastics Products, nec.	9,957	338	8,869	75	Q	Q	Q	Q	W	42	16.9
31	Leather and Leather Products	1,356	58	1,231	Q	28	Q	W	26	W	Q	21.7
32	Stone, Clay and Glass Products	11,815	443	9,238	54	211	18	Q	54	Q	Q	20.9
3211	Flat Glass	68	W	64	0	0	0	0	0	0	W	13.5
3221	Glass Containers	78	6	74	6	W	0	0	W	0	0	8.8
3229	Pressed and Blown Glass, nec.	163	Q	117	Q	Q	Q	W	Q	W	Q	41.5
3241	Cement, Hydraulic	190	4	186	W	4	W	W	0	0	0	14.5
3274	Lime	83	W	77	0	W	0	0	0	0	0	19.9
3296	Mineral Wool	174	W	W	W	0	0	0	W	0	0	6.7
33	Primary Metal Industries	5,117	259	3,972	111	48	33	Q	70	W	Q	16.0
331	Blast Furnace and Basic Steel Products	981	42	824	25	15	11	W	14	0	4	15.5
3312	Blast Furnaces and Steel Mills	284	20	264	12	6	9	W	9	0	W	7.2
3313	Electrometallurgical Products	36	Q	29	Q	Q	W	0	W	0	0	28.3
3321	Gray and Ductile Iron Foundries	517	26	425	Q	Q	Q	0	Q	W	0	22.9
3331	Primary Copper	20	W	W	0	W	0	0	0	0	0	2.4
3334	Primary Aluminum	44	0	37	0	0	0	0	0	0	0	25.8
3339	Primary Nonferrous Metals, nec.	88	W	82	W	0	0	0	W	0	0	16.9
3353	Aluminum Sheet, Plate, and Foil	55	W	W	W	0	0	0	W	0	0	7.6
34	Fabricated Metal Products	26,251	740	21,700	499	281	Q	Q	249	Q	Q	19.5
35	Industrial Machinery and Equipment	33,655	1,364	27,175	381	337	170	Q	386	Q	Q	17.5
357	Computer and Office Equipment	1,381	Q	1,180	Q	Q	Q	0	Q	0	W	30.4
36	Electronic and Other Electric Equipment	11,254	525	9,730	77	148	W	W	16	0	W	20.7

See footnotes at end of table.

Table A37. Number of Establishments by Capability to Switch from Electricity to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2 (Continued)

		Electricity Receipts ^b			Alternative Types of Energy ^c							RSE Row Factors
		Total Receipts ^d	Switchable	Not Switchable	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other ^e	
SIC Code ^a	Industry Group and Industry											
RSE Column Factors:		0.1	1.3	0.2	1.4	1.6	1.5	1.4	1.9	2.9	1.9	
37	Transportation Equipment	7,240	257	6,347	Q	35	Q	W	Q	W	13	21.3
3711	Motor Vehicles and Car Bodies	322	W	321	W	0	0	0	W	0	0	8.2
3714	Motor Vehicle Parts and Accessories	2,062	64	1,798	Q	10	W	W	Q	W	Q	25.6
38	Instruments and Related Products	7,059	567	5,851	Q	Q	Q	Q	Q	W	Q	21.0
3841	Surgical and Medical Instruments	878	Q	857	W	W	0	0	W	0	0	15.7
39	Misc. Manufacturing Industries	9,994	734	9,022	305	Q	Q	Q	Q	W	W	21.9
Total		243,397	7,173	201,431	2,768	2,066	1,093	882	1,460	652	1,179	9.7

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

^b This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.

^c "Alternative Types of Energy" consist of those energy sources that could have been substituted for electricity receipts during 1994. The quantities are expressed in millions of kilowatthours, and therefore represent the quantity of electricity that could have been displaced by the given alternative type of energy.

^d "Total Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^e "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of electricity.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A38. Capability to Switch from Distillate Fuel Oil to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1
(Estimates in Thousand Barrels)

SIC Code ^a	Industry Group and Industry	Distillate Fuel Oil			Alternative Types of Energy ^b							RSE Row Factors
		Total Consumed ^c	Switchable	Not Switchable	Electricity Receipts ^d	Natural Gas	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other ^e	
	RSE Column Factors:	0.5	0.7	0.6	1.4	0.7	1.1	1.2	1.1	2.2	1.4	
20	Food and Kindred Products	3,180	628	1,804	115	518	105	W	196	0	W	16.6
2011	Meat Packing Plants	101	10	85	0	10	*	0	*	0	Q	35.0
2033	Canned Fruits and Vegetables	119	27	51	*	24	W	0	Q	0	0	49.0
2037	Frozen Fruits and Vegetables	62	39	15	*	13	6	0	26	0	0	36.5
2046	Wet Corn Milling	10	2	6	0	2	0	0	0	0	0	42.0
2051	Bread, Cake, and Related Products	131	21	81	0	18	Q	0	Q	0	0	47.6
2061	Cane Sugar, Except Refining	220	52	107	0	W	0	0	W	0	W	28.2
2062	Cane Sugar Refining	97	10	86	0	10	0	0	0	0	0	61.0
2063	Beet Sugar	W	W	16	0	W	0	0	0	0	0	8.5
2075	Soybean Oil Mills	W	47	11	0	W	W	W	W	0	W	2.0
2082	Malt Beverages	21	W	9	W	W	W	W	0	0	0	2.7
21	Tobacco Products	W	3	15	0	3	0	0	0	0	0	62.4
22	Textile Mill Products	W	461	686	92	207	Q	Q	103	0	Q	35.5
23	Apparel and Other Textile Products	106	Q	68	*	8	Q	0	*	0	W	50.6
24	Lumber and Wood Products	3,793	129	2,127	Q	14	9	Q	Q	Q	Q	33.2
2421	Sawmills and Planing Mills, General	1,206	Q	706	Q	Q	Q	0	Q	0	Q	22.7
2436	Softwood Veneer and Plywood	251	Q	201	Q	0	W	0	Q	0	0	22.2
2493	Reconstituted Wood Products	W	Q	93	1	Q	0	0	1	0	Q	30.8
25	Furniture and Fixtures	153	40	99	*	29	0	Q	5	0	Q	39.0
2511	Wood Furniture, Except Upholstered	62	6	53	0	Q	0	0	0	0	Q	41.4
26	Paper and Allied Products	1,560	590	908	22	372	193	58	49	7	4	12.6
2611	Pulp Mills	W	W	154	0	W	*	0	*	0	0	30.4
2621	Paper Mills	744	366	353	W	193	136	58	19	W	0	14.8
2631	Paperboard Mills	W	91	219	W	W	44	0	19	0	W	7.9
27	Printing and Publishing	261	55	182	Q	53	11	0	9	0	0	23.9
28	Chemicals and Allied Products	2,201	635	1,448	12	538	67	W	40	0	41	12.6
2812	Alkalies and Chlorine	51	W	W	0	W	0	0	0	0	0	14.7
2813	Industrial Gases	W	0	Q	0	0	0	0	0	0	0	0.0
2816	Inorganic Pigments	W	30	26	0	30	0	0	W	0	0	15.1
2819	Industrial Inorganic Chemicals, nec.	W	61	192	*	49	W	0	Q	0	W	17.5
2821	Plastics Materials and Resins	186	91	89	W	70	0	0	*	0	Q	21.6
2822	Synthetic Rubber	15	2	13	*	*	0	0	2	0	0	45.1
2823	Cellulosic Manmade Fibers	23	W	W	0	W	0	0	W	0	0	1.4
2824	Organic Fibers, Noncellulosic	88	51	37	*	50	W	W	0	0	0	13.6
2861	Gum and Wood Chemicals	W	W	W	0	0	0	0	0	0	W	13.3
2865	Cyclic Crudes and Intermediates	204	60	131	0	60	Q	0	0	0	Q	38.3
2869	Industrial Organic Chemicals, nec.	317	65	224	W	44	26	W	7	0	0	22.7
2873	Nitrogenous Fertilizers	29	5	22	0	4	*	0	0	0	*	25.9
2874	Phosphatic Fertilizers	117	W	92	0	W	W	0	0	0	W	9.6
2895	Carbon Black	W	0	4	0	0	0	0	0	0	0	21.8
29	Petroleum and Coal Products	3,652	785	2,580	36	608	133	40	368	Q	W	18.2
2911	Petroleum Refining	1,159	352	759	0	282	92	W	159	0	W	14.9
30	Rubber and Misc. Plastics Products	540	169	337	6	129	52	15	19	Q	8	20.9
3011	Tires and Inner Tubes	115	52	Q	0	42	W	W	0	0	*	15.5
308	Miscellaneous Plastics Products, nec.	262	64	180	6	53	W	W	10	Q	Q	26.1
31	Leather and Leather Products	W	Q	37	0	Q	Q	0	Q	0	0	50.8
32	Stone, Clay and Glass Products	3,917	246	3,375	8	202	36	11	92	7	20	18.3
3211	Flat Glass	11	*	11	*	*	0	0	*	0	0	37.8
3221	Glass Containers	75	30	45	*	30	0	0	W	0	0	18.6
3229	Pressed and Blown Glass, nec.	57	44	9	W	44	Q	0	W	0	0	19.1
3241	Cement, Hydraulic	820	57	752	Q	17	20	6	W	Q	14	31.3
3274	Lime	251	Q	220	W	Q	Q	Q	Q	Q	Q	37.9
3296	Mineral Wool	9	*	9	0	*	0	0	*	0	0	41.2
33	Primary Metal Industries	2,126	302	1,725	8	266	52	*	29	14	44	16.5
331	Blast Furnace and Basic Steel Products	W	138	711	W	135	7	*	8	0	44	18.6
3312	Blast Furnaces and Steel Mills	W	134	651	W	134	W	0	8	0	W	17.5
3313	Electrometallurgical Products	21	0	19	0	0	0	0	0	0	0	68.2
3321	Gray and Ductile Iron Foundries	113	13	91	*	Q	0	0	1	0	*	35.0
3331	Primary Copper	W	W	W	0	W	0	0	0	0	0	1.6
3334	Primary Aluminum	125	W	123	W	W	0	0	W	0	0	1.4
3339	Primary Nonferrous Metals, nec.	W	W	W	0	W	0	0	5	0	0	25.8
3353	Aluminum Sheet, Plate, and Foil	W	W	56	W	8	0	0	W	0	0	10.2
34	Fabricated Metal Products	747	111	570	Q	96	13	4	28	0	Q	29.7
35	Industrial Machinery and Equipment	672	49	560	Q	46	Q	Q	24	Q	3	25.3
357	Computer and Office Equipment	23	13	9	0	13	*	0	1	0	0	50.2
36	Electronic and Other Electric Equipment	290	91	171	6	71	5	*	11	*	W	27.9

See footnotes at end of table.

Table A38. Capability to Switch from Distillate Fuel Oil to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1 (Continued)
(Estimates in Thousand Barrels)

SIC Code ^a	Industry Group and Industry	Distillate Fuel Oil			Alternative Types of Energy ^b							RSE Row Factors
		Total Consumed ^c	Switchable	Not Switchable	Electricity Receipts ^d	Natural Gas	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other ^e	
	RSE Column Factors:	0.5	0.7	0.6	1.4	0.7	1.1	1.2	1.1	2.2	1.4	
37	Transportation Equipment	1,123	267	796	66	165	2	5	Q	1	*	27.6
3711	Motor Vehicles and Car Bodies	81	17	Q	0	17	0	0	0	0	0	66.6
3714	Motor Vehicle Parts and Accessories	166	126	37	3	125	*	*	3	0	0	39.4
38	Instruments and Related Products	238	60	176	Q	50	3	*	13	*	3	26.5
3841	Surgical and Medical Instruments	13	1	11	0	1	0	0	1	0	0	45.0
39	Misc. Manufacturing Industries	209	49	153	Q	37	Q	0	Q	0	0	55.0
	Total	26,107	4,696	17,816	486	3,417	935	210	1,063	74	330	10.0
Census Region and Division												
	Northeast	7,116	1,732	4,506	339	1,325	298	W	518	17	90	13.6
	New England	2,483	588	1,671	239	340	124	Q	156	Q	19	16.2
	Middle Atlantic	4,633	1,144	2,836	100	985	174	W	362	Q	Q	15.1
	Midwest	4,034	542	3,082	W	473	36	95	99	W	W	16.3
	East North Central	3,128	428	2,432	W	369	29	W	84	W	W	18.5
	West North Central	905	114	650	Q	104	8	W	15	0	8	23.8
	South	9,464	2,037	6,151	W	1,369	511	W	291	W	96	15.1
	South Atlantic	5,884	1,399	3,855	W	902	W	W	260	W	W	17.3
	East South Central	W	480	1,176	W	437	W	W	27	0	10	19.0
	West South Central	W	158	1,121	Q	30	W	W	Q	14	W	19.9
	West	5,493	384	4,076	Q	250	90	W	154	Q	W	17.0
	Mountain	1,261	20	1,122	W	14	W	W	11	Q	W	15.2
	Pacific	4,232	364	2,954	W	236	W	Q	144	0	W	19.6
	Total	26,107	4,696	17,816	486	3,417	935	210	1,063	74	330	10.0
Value of Shipments and Receipts^f (million dollars)												
	Under 20	11,153	1,047	7,709	200	715	232	76	391	W	W	17.5
	20-49	4,119	856	2,700	63	543	Q	9	168	5	109	19.1
	50-99	3,160	750	2,150	40	573	149	11	124	14	113	15.8
	100-249	2,346	699	1,427	Q	611	121	27	203	1	Q	11.8
	250-499	2,516	711	1,721	38	469	164	Q	98	W	4	12.7
	500 and Over	2,812	633	2,108	70	506	32	62	80	0	W	14.2
	Total	26,107	4,696	17,816	486	3,417	935	210	1,063	74	330	10.0
Employment Size^g												
	Under 50	8,059	654	5,558	76	435	103	45	282	W	W	22.0
	50-99	3,314	482	2,432	Q	381	170	Q	103	Q	146	20.3
	100-249	5,136	1,035	3,506	26	678	Q	30	207	23	81	15.9
	250-499	3,329	869	1,988	121	717	182	16	186	0	39	15.9
	500-999	2,761	740	1,850	70	596	45	27	246	1	5	14.0
	1,000 and Over	3,508	916	2,481	78	610	181	74	39	W	W	12.8
	Total	26,107	4,696	17,816	486	3,417	935	210	1,063	74	330	10.0

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

^b "Alternative Types of Energy" consist of those energy sources that could have been substituted for distillate fuel oil during 1994. The quantities are expressed in thousands of barrels, and therefore represent the quantity of distillate fuel oil that could have been displaced by the given alternative type of energy.

^c "Total Consumed" represents those quantities (Total Inputs) of distillate fuel oil that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^d "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^e "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of distillate fuel oil.

^f Value of Shipments and Receipts and Employment Size categories were supplied by the Bureau of the Census. See Appendix B.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A38. Number of Establishments by Capability to Switch from Distillate Fuel Oil to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2

SIC Code ^a	Industry Group and Industry	Distillate Fuel Oil ^b			Alternative Types of Energy ^c							RSE Row Factors
		Total Consumed ^d	Switchable	Not Switchable	Electricity Receipts ^e	Natural Gas	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other ^f	
	RSE Column Factors:	0.4	0.9	0.5	1.4	0.9	1.2	1.2	1.2	1.9	1.4	
20	Food and Kindred Products	3,249	568	1,648	32	493	87	5	101	0	66	17.0
2011	Meat Packing Plants	144	58	111	0	58	W	0	W	0	Q	32.4
2033	Canned Fruits and Vegetables	97	34	65	W	31	17	0	5	0	0	27.9
2037	Frozen Fruits and Vegetables	Q	Q	Q	W	Q	W	0	W	0	0	0.0
2046	Wet Corn Milling	20	W	17	0	W	0	0	0	0	0	25.5
2051	Bread, Cake, and Related Products	250	23	45	0	13	13	0	W	0	0	48.9
2061	Cane Sugar, Except Refining	26	6	14	0	W	0	0	W	0	W	17.7
2062	Cane Sugar Refining	15	3	12	0	3	0	0	0	0	0	23.0
2063	Beet Sugar	30	W	24	0	W	0	0	0	0	0	5.3
2075	Soybean Oil Mills	38	11	21	0	11	W	W	W	0	W	1.6
2082	Malt Beverages	35	8	18	5	5	W	W	0	0	0	10.9
21	Tobacco Products	42	6	32	0	6	0	0	0	0	0	14.3
22	Textile Mill Products	668	254	328	22	160	34	11	Q	0	W	38.1
23	Apparel and Other Textile Products	876	54	723	6	33	21	0	6	0	21	40.0
24	Lumber and Wood Products	9,251	160	4,183	40	88	26	W	68	W	28	21.2
2421	Sawmills and Planing Mills, General	2,044	34	1,275	16	Q	W	0	W	0	W	29.7
2436	Softwood Veneer and Plywood	158	12	135	W	0	4	0	9	0	0	11.7
2493	Reconstituted Wood Products	100	Q	75	Q	Q	0	0	Q	0	W	97.1
25	Furniture and Fixtures	566	70	391	W	39	0	W	Q	0	18	37.3
2511	Wood Furniture, Except Upholstered	233	11	179	0	7	0	0	0	0	4	44.7
26	Paper and Allied Products	878	252	510	W	208	31	8	32	3	6	20.0
2611	Pulp Mills	38	7	29	0	5	W	0	W	0	0	11.5
2621	Paper Mills	166	33	130	3	26	5	6	4	W	0	7.8
2631	Paperboard Mills	102	21	86	W	15	6	0	6	0	W	4.7
27	Printing and Publishing	1,853	70	1,534	10	60	15	0	24	0	0	25.5
28	Chemicals and Allied Products	2,541	447	1,773	Q	331	33	6	60	0	86	17.3
2812	Alkalies and Chlorine	19	6	14	0	5	0	0	0	0	0	6.4
2813	Industrial Gases	10	0	10	0	0	0	0	0	0	0	47.5
2816	Inorganic Pigments	32	9	24	0	9	0	0	3	0	0	7.6
2819	Industrial Inorganic Chemicals, nec.	285	46	133	3	34	9	0	12	0	4	22.3
2821	Plastics Materials and Resins	160	41	99	5	30	0	0	W	0	6	16.0
2822	Synthetic Rubber	20	4	18	W	W	0	0	3	0	0	27.4
2823	Cellulosic Manmade Fibers	6	W	4	0	W	0	0	W	0	0	1.4
2824	Organic Fibers, Noncellulosic	33	14	23	W	12	W	W	0	0	0	7.5
2861	Gum and Wood Chemicals	38	W	19	0	0	0	0	0	0	W	4.9
2865	Cyclic Crudes and Intermediates	73	21	53	0	21	W	0	0	0	W	26.6
2869	Industrial Organic Chemicals, nec.	250	50	166	W	41	11	3	5	0	0	23.4
2873	Nitrogenous Fertilizers	51	8	34	0	5	W	0	0	0	W	16.6
2874	Phosphatic Fertilizers	46	3	35	0	W	W	0	0	0	W	5.3
2895	Carbon Black	12	0	10	0	0	0	0	0	0	0	12.9
29	Petroleum and Coal Products	783	110	569	4	79	28	6	48	Q	4	23.3
2911	Petroleum Refining	82	17	58	0	15	5	W	8	0	3	6.7
30	Rubber and Misc. Plastics Products	1,036	221	618	31	150	Q	8	24	W	7	24.1
3011	Tires and Inner Tubes	69	20	35	0	18	W	3	0	0	W	19.8
308	Miscellaneous Plastics Products, nec.	606	79	392	31	71	11	5	19	W	3	23.5
31	Leather and Leather Products	108	Q	82	0	Q	W	0	W	0	0	64.6
32	Stone, Clay and Glass Products	3,829	164	2,805	14	90	24	14	86	7	Q	20.8
3211	Flat Glass	43	4	39	W	4	0	0	W	0	0	14.9
3221	Glass Containers	30	7	21	W	7	0	0	W	0	0	11.4
3229	Pressed and Blown Glass, nec.	37	8	22	W	7	W	0	5	0	0	51.2
3241	Cement, Hydraulic	154	22	135	W	8	8	10	4	W	4	21.4
3274	Lime	68	W	56	W	W	W	W	W	W	W	30.4
3296	Mineral Wool	99	15	80	0	10	0	0	W	0	0	11.8
33	Primary Metal Industries	1,287	161	967	19	94	16	W	45	W	19	18.5
331	Blast Furnace and Basic Steel Products	315	47	252	W	31	3	W	8	0	Q	18.5
3312	Blast Furnaces and Steel Mills	152	25	134	W	23	W	0	5	0	W	8.8
3313	Electrometallurgical Products	18	0	16	0	0	0	0	0	0	0	52.8
3321	Gray and Ductile Iron Foundries	289	30	220	W	12	0	0	W	0	W	32.4
3331	Primary Copper	8	W	8	0	W	0	0	0	0	0	1.6
3334	Primary Aluminum	36	W	30	W	W	0	0	W	0	0	10.2
3339	Primary Nonferrous Metals, nec.	25	4	18	0	W	0	0	W	0	0	30.3
3353	Aluminum Sheet, Plate, and Foil	38	7	27	W	6	0	0	4	0	0	5.6
34	Fabricated Metal Products	2,924	408	1,968	216	334	20	3	240	0	Q	32.5
35	Industrial Machinery and Equipment	2,773	342	1,607	142	286	119	156	241	Q	5	30.4
357	Computer and Office Equipment	54	7	12	0	7	W	0	4	0	0	43.5
36	Electronic and Other Electric Equipment	721	154	516	29	73	3	W	19	W	Q	26.7

See footnotes at end of table.

Table A38. Number of Establishments by Capability to Switch from Distillate Fuel Oil to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2 (Continued)

		Distillate Fuel Oil ^b			Alternative Types of Energy ^c							RSE Row Factors
SIC Code ^a	Industry Group and Industry	Total Consumed ^d	Switchable	Not Switchable	Electricity Receipts ^e	Natural Gas	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other ^f	
	RSE Column Factors:	0.4	0.9	0.5	1.4	0.9	1.2	1.2	1.2	1.9	1.4	
37	Transportation Equipment	811	87	614	16	47	6	3	41	W	W	25.5
3711	Motor Vehicles and Car Bodies	Q	W	Q	0	W	0	0	0	0	0	0.0
3714	Motor Vehicle Parts and Accessories	141	29	91	4	13	W	W	Q	0	0	32.1
38	Instruments and Related Products	866	Q	615	Q	Q	Q	W	Q	W	Q	63.2
3841	Surgical and Medical Instruments	24	3	20	0	3	0	0	W	0	0	41.9
39	Misc. Manufacturing Industries	856	115	711	Q	57	W	0	W	0	0	44.9
	Total	35,920	3,893	22,193	993	2,865	616	285	1,222	194	525	12.2

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

^b This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.

^c "Alternative Types of Energy" consist of those energy sources that could have been substituted for distillate fuel oil during 1994. The quantities are expressed in thousands of barrels, and therefore represent the quantity of distillate fuel oil that could have been displaced by the given alternative type of energy.

^d "Total Consumed" represents those quantities (Total Inputs) of distillate fuel oil that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^e "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^f "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of distillate fuel oil.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A39. Capability to Switch from Coal to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1
(Estimates in Thousand Short Tons)

SIC Code ^a	Industry Group and Industry	Coal			Alternative Types of Energy ^b						RSE Row Factors
		Total Consumed ^c	Switchable	Not Switchable	Electricity Receipts ^d	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	LPG	Other ^e	
RSE Column Factors:		0.6	0.8	0.8	1.1	0.8	0.9	1.0	2.0	1.8	
20	Food and Kindred Products	7,500	3,330	4,142	325	2,672	853	816	520	2	12.8
2011	Meat Packing Plants	W	0	Q	0	0	0	0	0	0	0.0
2033	Canned Fruits and Vegetables	W	4	4	0	0	0	4	0	0	51.5
2037	Frozen Fruits and Vegetables	0	0	0	0	0	0	0	0	0	0.0
2046	Wet Corn Milling	3,556	1,503	2,054	49	1,423	106	0	446	2	24.7
2051	Bread, Cake, and Related Products	0	0	0	0	0	0	0	0	0	0.0
2061	Cane Sugar, Except Refining	W	W	0	0	W	0	0	0	0	40.4
2062	Cane Sugar Refining	0	0	0	0	0	0	0	0	0	0.0
2063	Beet Sugar	1,790	434	1,355	W	315	0	W	0	0	6.4
2075	Soybean Oil Mills	682	W	430	W	W	W	0	0	0	1.2
2082	Malt Beverages	789	694	95	W	377	W	W	0	0	10.1
21	Tobacco Products	W	203	373	0	57	0	182	0	0	33.9
22	Textile Mill Products	1,821	957	865	W	727	514	208	35	0	26.7
23	Apparel and Other Textile Products	W	Q	Q	0	W	Q	0	0	0	0.0
24	Lumber and Wood Products	W	W	W	Q	W	0	0	0	0	24.2
2421	Sawmills and Planing Mills, General	0	0	0	0	0	0	0	0	0	0.0
2436	Softwood Veneer and Plywood	0	0	0	0	0	0	0	0	0	0.0
2493	Reconstituted Wood Products	W	W	W	0	W	0	0	0	0	24.2
25	Furniture and Fixtures	115	74	40	*	49	7	Q	Q	33	32.3
2511	Wood Furniture, Except Upholstered	56	31	25	0	Q	Q	Q	Q	30	27.0
26	Paper and Allied Products	13,812	6,198	7,327	661	3,007	1,734	3,236	337	445	6.8
2611	Pulp Mills	328	W	225	0	W	W	10	0	89	30.6
2621	Paper Mills	8,783	3,851	4,646	371	1,991	1,302	1,514	W	W	10.0
2631	Paperboard Mills	4,552	2,166	2,386	290	935	421	1,712	W	W	5.4
27	Printing and Publishing	0	0	0	0	0	0	0	0	0	0.0
28	Chemicals and Allied Products	11,597	3,789	7,566	168	2,219	1,885	1,158	W	*	9.4
2812	Alkalies and Chlorine	W	W	W	0	W	0	0	0	0	18.6
2813	Industrial Gases	0	0	0	0	0	0	0	0	0	0.0
2816	Inorganic Pigments	W	*	W	0	*	0	0	*	0	19.5
2819	Industrial Inorganic Chemicals, nec.	1,451	234	1,217	0	209	35	W	W	0	21.2
2821	Plastics Materials and Resins	875	299	575	0	272	0	W	0	0	15.4
2822	Synthetic Rubber	W	91	100	0	47	44	0	0	0	52.3
2823	Cellulosic Manmade Fibers	W	W	W	W	W	W	0	0	0	1.2
2824	Organic Fibers, Noncellulosic	1,577	W	834	W	W	W	W	W	0	10.6
2861	Gum and Wood Chemicals	0	0	0	0	0	0	0	0	0	0.0
2865	Cyclic Crudes and Intermediates	W	W	131	0	21	21	0	0	0	42.2
2869	Industrial Organic Chemicals, nec.	4,178	1,306	2,820	W	1,071	818	W	0	0	16.6
2873	Nitrogenous Fertilizers	0	0	0	0	0	0	0	0	0	0.0
2874	Phosphatic Fertilizers	W	W	0	0	W	W	W	0	0	9.7
2895	Carbon Black	0	0	0	0	0	0	0	0	0	0.0
29	Petroleum and Coal Products	W	151	288	0	114	W	109	W	0	23.5
2911	Petroleum Refining	W	55	W	0	55	W	W	W	0	16.6
30	Rubber and Misc. Plastics Products	219	113	106	W	100	30	32	0	0	23.5
3011	Tires and Inner Tubes	81	43	W	W	Q	W	W	0	0	16.8
308	Miscellaneous Plastics Products, nec.	82	70	W	W	70	W	W	0	0	39.9
31	Leather and Leather Products	0	0	0	0	0	0	0	0	0	0.0
32	Stone, Clay and Glass Products	12,423	6,990	5,171	0	6,338	1,708	1,978	833	983	10.3
3211	Flat Glass	0	0	0	0	0	0	0	0	0	0.0
3221	Glass Containers	0	0	0	0	0	0	0	0	0	0.0
3229	Pressed and Blown Glass, nec.	0	0	0	0	0	0	0	0	0	0.0
3241	Cement, Hydraulic	9,174	5,173	3,958	0	4,520	1,380	1,755	579	703	11.0
3274	Lime	2,980	1,735	1,087	0	1,735	285	182	202	Q	24.2
3296	Mineral Wool	0	0	0	0	0	0	0	0	0	0.0
33	Primary Metal Industries	2,327	1,858	469	W	1,540	W	109	W	W	23.8
331	Blast Furnace and Basic Steel Products	1,771	W	279	0	W	W	109	W	W	26.4
3312	Blast Furnaces and Steel Mills	1,598	1,486	113	0	1,486	W	109	W	W	23.4
3313	Electrometallurgical Products	Q	0	W	0	0	0	0	0	0	0.0
3321	Gray and Ductile Iron Foundries	5	0	5	0	0	0	0	0	0	41.2
3331	Primary Copper	W	W	W	0	W	0	0	0	0	1.4
3334	Primary Aluminum	0	0	0	0	0	0	0	0	0	0.0
3339	Primary Nonferrous Metals, nec.	361	W	W	W	0	0	0	0	0	35.9
3353	Aluminum Sheet, Plate, and Foil	W	0	W	0	0	0	0	0	0	20.6
34	Fabricated Metal Products	W	70	147	W	69	56	15	0	0	34.4
35	Industrial Machinery and Equipment	484	193	276	0	140	66	48	48	0	28.1
357	Computer and Office Equipment	0	0	0	0	0	0	0	0	0	0.0
36	Electronic and Other Electric Equipment	W	11	87	0	11	5	5	0	W	35.1

See footnotes at end of table.

Table A39. Capability to Switch from Coal to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1 (Continued)
(Estimates in Thousand Short Tons)

SIC Code ^a	Industry Group and Industry	Coal			Alternative Types of Energy ^b						RSE Row Factors
		Total Consumed ^c	Switchable	Not Switchable	Electricity Receipts ^d	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	LPG	Other ^e	
RSE Column Factors:		0.6	0.8	0.8	1.1	0.8	0.9	1.0	2.0	1.8	
37	Transportation Equipment	1,245	282	963	0	269	35	21	Q	0	30.2
3711	Motor Vehicles and Car Bodies	571	182	389	0	182	0	0	0	0	40.2
3714	Motor Vehicle Parts and Accessories	444	85	359	0	72	20	21	Q	0	33.2
38	Instruments and Related Products	1,065	700	364	W	0	189	463	0	0	49.0
3841	Surgical and Medical Instruments	0	0	0	0	0	0	0	0	0	0.0
39	Misc. Manufacturing Industries	37	9	0	0	W	0	0	0	0	59.6
Total		54,143	24,943	28,335	1,621	17,334	7,174	8,385	1,926	1,507	5.7
Census Region and Division											
Northeast		5,775	2,264	3,434	418	705	494	976	Q	220	17.0
New England		715	293	374	0	40	135	135	0	220	24.7
Middle Atlantic		5,060	1,971	3,061	418	664	358	840	Q	0	19.7
Midwest		18,418	7,925	9,834	221	6,509	1,985	949	1,035	339	10.4
East North Central		12,339	5,466	6,265	167	4,465	1,572	721	862	85	10.0
West North Central		6,079	2,459	3,569	54	2,044	413	229	173	254	18.6
South		23,986	11,187	12,724	836	7,328	3,328	4,923	725	878	7.0
South Atlantic		13,141	6,575	6,492	683	3,100	2,123	3,691	380	549	8.5
East South Central		W	2,513	5,133	W	2,303	642	642	W	146	12.8
West South Central		W	2,099	1,099	W	1,925	563	589	W	182	20.5
West		5,965	3,567	2,342	146	2,792	1,367	1,538	112	70	12.4
Mountain		W	2,138	1,439	146	1,576	964	547	112	26	13.4
Pacific		W	1,429	903	0	1,216	403	991	0	45	21.3
Total		54,143	24,943	28,335	1,621	17,334	7,174	8,385	1,926	1,507	5.7
Value of Shipments and Receipts ^f (million dollars)											
Under 20		3,111	1,304	1,536	Q	1,248	407	301	289	W	15.5
20-49		7,540	3,392	4,025	Q	2,931	896	980	379	333	12.5
50-99		7,278	3,432	3,728	50	2,738	822	1,226	202	391	13.0
100-249		11,475	5,171	5,979	679	3,346	1,518	1,492	152	261	11.7
250-499		12,658	6,232	6,398	492	3,540	1,795	2,308	787	392	9.1
500 and Over		12,082	5,413	6,669	399	3,531	1,737	2,077	117	W	12.2
Total		54,143	24,943	28,335	1,621	17,334	7,174	8,385	1,926	1,507	5.7
Employment Size ^g											
Under 50		1,045	464	399	0	432	141	121	W	*	29.5
50-99		2,901	1,170	1,637	W	979	337	290	W	97	13.0
100-249		14,306	6,478	7,681	W	5,600	1,843	1,789	664	691	9.2
250-499		7,694	3,166	4,438	139	1,971	784	1,170	159	37	11.5
500-999		9,841	4,964	4,626	739	3,331	1,280	1,214	530	387	11.4
1,000 and Over		18,356	8,700	9,554	682	5,021	2,789	3,803	375	296	8.5
Total		54,143	24,943	28,335	1,621	17,334	7,174	8,385	1,926	1,507	5.7

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

^b "Alternative Types of Energy" consist of those energy sources that could have been substituted for coal during 1994. The quantities are expressed in thousands of short tons, and therefore represent the quantity of coal that could have been displaced by the given alternative type of energy.

^c "Total Consumed" represents those quantities (Total Inputs) of coal that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^d "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^e "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of coal.

^f Value of Shipments and Receipts and Employment Size categories were supplied by the Bureau of the Census. See Appendix B.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A39. Number of Establishments by Capability to Switch from Coal to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2

SIC Code ^a	Industry Group and Industry	Coal ^b			Alternative Types of Energy ^c						RSE Row Factors
		Total Consumed ^d	Switchable	Not Switchable	Electricity Receipts ^e	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	LPG	Other ^f	
RSE Column Factors:		0.7	0.8	0.8	1.1	0.8	1.0	1.0	1.6	1.5	
20	Food and Kindred Products	173	101	106	13	80	39	31	Q	W	13.9
2011	Meat Packing Plants	W	0	W	0	0	0	0	0	0	0.0
2033	Canned Fruits and Vegetables	W	W	W	0	0	0	W	0	0	37.5
2037	Frozen Fruits and Vegetables	0	0	0	0	0	0	0	0	0	0.0
2046	Wet Corn Milling	20	17	11	W	16	4	0	W	W	16.1
2051	Bread, Cake, and Related Products	0	0	0	0	0	0	0	0	0	0.0
2061	Cane Sugar, Except Refining	W	W	0	0	W	0	0	0	0	37.9
2062	Cane Sugar Refining	0	0	0	0	0	0	0	0	0	0.0
2063	Beet Sugar	28	9	24	W	7	0	W	0	0	3.9
2075	Soybean Oil Mills	18	9	12	W	7	W	0	0	0	1.2
2082	Malt Beverages	33	30	14	7	23	14	12	0	0	18.3
21	Tobacco Products	31	13	21	0	6	0	W	0	0	11.3
22	Textile Mill Products	85	43	43	W	32	12	20	W	0	31.0
23	Apparel and Other Textile Products	5	W	W	0	W	W	0	0	0	52.8
24	Lumber and Wood Products	8	7	W	W	W	0	0	0	0	58.4
2421	Sawmills and Planing Mills, General	0	0	0	0	0	0	0	0	0	0.0
2436	Softwood Veneer and Plywood	0	0	0	0	0	0	0	0	0	0.0
2493	Reconstituted Wood Products	W	W	W	0	W	0	0	0	0	61.4
25	Furniture and Fixtures	85	56	32	W	19	13	10	W	51	29.7
2511	Wood Furniture, Except Upholstered	62	42	20	0	10	10	W	W	40	36.2
26	Paper and Allied Products	173	104	108	21	69	37	49	5	13	6.0
2611	Pulp Mills	7	3	5	0	W	W	W	0	W	16.6
2621	Paper Mills	80	52	51	11	37	20	19	W	4	6.6
2631	Paperboard Mills	57	43	26	9	25	13	28	W	7	3.9
27	Printing and Publishing	0	0	0	0	0	0	0	0	0	0.0
28	Chemicals and Allied Products	125	78	74	10	55	32	21	4	W	7.3
2812	Alkalies and Chlorine	3	W	3	0	W	0	0	0	0	12.5
2813	Industrial Gases	0	0	0	0	0	0	0	0	0	0.0
2816	Inorganic Pigments	5	W	W	0	W	0	0	W	0	13.8
2819	Industrial Inorganic Chemicals, nec.	13	7	8	0	5	4	W	W	0	19.7
2821	Plastics Materials and Resins	15	12	10	0	10	0	3	0	0	11.5
2822	Synthetic Rubber	4	3	3	0	3	W	0	0	0	37.6
2823	Cellulosic Manmade Fibers	4	4	3	W	W	W	0	0	0	1.2
2824	Organic Fibers, Noncellulosic	13	11	6	5	5	7	W	W	0	7.7
2861	Gum and Wood Chemicals	0	0	0	0	0	0	0	0	0	0.0
2865	Cyclic Crudes and Intermediates	5	W	W	0	W	W	0	0	0	25.6
2869	Industrial Organic Chemicals, nec.	24	15	12	W	13	9	W	0	0	15.8
2873	Nitrogenous Fertilizers	0	0	0	0	0	0	0	0	0	0.0
2874	Phosphatic Fertilizers	4	4	0	0	W	W	W	0	0	7.4
2895	Carbon Black	0	0	0	0	0	0	0	0	0	0.0
29	Petroleum and Coal Products	15	10	4	0	9	3	4	W	0	18.7
2911	Petroleum Refining	5	4	3	0	4	3	W	W	0	11.9
30	Rubber and Misc. Plastics Products	23	14	12	5	11	6	5	0	0	23.3
3011	Tires and Inner Tubes	8	7	3	W	5	W	W	0	0	21.4
308	Miscellaneous Plastics Products, nec.	6	6	W	3	5	3	3	0	0	25.3
31	Leather and Leather Products	0	0	0	0	0	0	0	0	0	0.0
32	Stone, Clay and Glass Products	233	125	99	0	116	37	36	18	30	9.8
3211	Flat Glass	0	0	0	0	0	0	0	0	0	0.0
3221	Glass Containers	0	0	0	0	0	0	0	0	0	0.0
3229	Pressed and Blown Glass, nec.	0	0	0	0	0	0	0	0	0	0.0
3241	Cement, Hydraulic	150	92	63	0	83	28	30	12	27	11.5
3274	Lime	46	27	16	0	27	7	4	4	W	16.5
3296	Mineral Wool	0	0	0	0	0	0	0	0	0	0.0
33	Primary Metal Industries	78	13	63	W	10	5	5	W	W	17.4
331	Blast Furnace and Basic Steel Products	31	11	21	0	9	5	5	W	W	14.3
3312	Blast Furnaces and Steel Mills	23	8	14	0	8	3	3	W	W	12.1
3313	Electrometallurgical Products	Q	0	Q	0	0	0	0	0	0	0.0
3321	Gray and Ductile Iron Foundries	Q	0	Q	0	0	0	0	0	0	0.0
3331	Primary Copper	W	W	W	0	W	0	0	0	0	1.3
3334	Primary Aluminum	0	0	0	0	0	0	0	0	0	0.0
3339	Primary Nonferrous Metals, nec.	W	W	W	W	0	0	0	0	0	37.1
3353	Aluminum Sheet, Plate, and Foil	W	0	W	0	0	0	0	0	0	15.6
34	Fabricated Metal Products	64	20	13	Q	9	Q	W	0	0	39.4
35	Industrial Machinery and Equipment	Q	7	Q	0	6	W	W	W	0	25.3
357	Computer and Office Equipment	0	0	0	0	0	0	0	0	0	0.0
36	Electronic and Other Electric Equipment	12	4	9	0	4	W	W	0	W	27.8

See footnotes at end of table.

Table A39. Number of Establishments by Capability to Switch from Coal to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2 (Continued)

		Coal ^b			Alternative Types of Energy ^c						RSE Row Factors
		Total Consumed ^d	Switchable	Not Switchable	Electricity Receipts ^e	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	LPG	Other ^f	
SIC Code ^a	Industry Group and Industry										
	RSE Column Factors:	0.7	0.8	0.8	1.1	0.8	1.0	1.0	1.6	1.5	
37	Transportation Equipment	31	15	26	0	14	6	5	W	0	28.6
3711	Motor Vehicles and Car Bodies	Q	W	Q	0	W	0	0	0	0	0.0
3714	Motor Vehicle Parts and Accessories	21	12	17	0	11	5	5	W	0	27.3
38	Instruments and Related Products	Q	W	Q	W	0	W	W	0	0	39.9
3841	Surgical and Medical Instruments	0	0	0	0	0	0	0	0	0	0.0
39	Misc. Manufacturing Industries	3	W	0	0	W	0	0	0	0	40.1
	Total	1,397	616	862	72	445	213	199	51	99	8.5

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

^b This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.

^c "Alternative Types of Energy" consist of those energy sources that could have been substituted for coal during 1994. The quantities are expressed in thousands of short tons, and therefore represent the quantity of coal that could have been displaced by the given alternative type of energy.

^d "Total Consumed" represents those quantities (Total Inputs) of coal that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^e "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^f "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of coal.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A40. Capability to Switch from LPG to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1
(Estimates in Thousand Barrels)

SIC Code ^a	Industry Group and Industry	LPG			Alternative Types of Energy ^b							RSE Row Factors
		Total Consumed ^c	Switchable	Not Switchable	Electricity Receipts ^d	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	Coal Coke and Breeze	Other ^e	
	RSE Column Factors:	0.4	0.6	0.5	1.1	0.7	1.1	1.2	2.8	2.2	1.1	
20	Food and Kindred Products	1,707	437	908	49	318	98	27	*	1	13	20.4
2011	Meat Packing Plants	W	Q	99	*	Q	Q	0	0	0	Q	41.6
2033	Canned Fruits and Vegetables	W	26	77	14	11	6	0	0	0	*	24.8
2037	Frozen Fruits and Vegetables	74	29	30	3	2	24	0	0	0	Q	38.2
2046	Wet Corn Milling	9	0	8	0	0	0	0	0	0	0	72.8
2051	Bread, Cake, and Related Products	89	49	5	*	W	Q	Q	0	0	0	69.5
2061	Cane Sugar, Except Refining	W	*	W	0	0	*	0	0	0	0	35.9
2062	Cane Sugar Refining	4	*	4	0	*	0	0	0	0	0	67.6
2063	Beet Sugar	W	W	W	0	W	0	0	0	0	0	9.2
2075	Soybean Oil Mills	W	W	W	0	W	*	*	0	0	W	1.3
2082	Malt Beverages	W	W	W	0	Q	0	0	0	0	0	16.0
21	Tobacco Products	W	Q	15	Q	0	0	0	0	0	Q	56.7
22	Textile Mill Products	W	232	663	14	207	18	6	0	0	W	36.3
23	Apparel and Other Textile Products	W	11	98	Q	7	Q	W	0	0	Q	58.6
24	Lumber and Wood Products	W	109	794	28	53	31	Q	Q	4	21	21.7
2421	Sawmills and Planing Mills, General	W	7	61	*	Q	1	0	0	0	W	38.2
2436	Softwood Veneer and Plywood	168	19	131	0	W	W	0	0	0	5	21.4
2493	Reconstituted Wood Products	W	14	341	W	W	W	0	0	0	W	20.7
25	Furniture and Fixtures	211	31	145	7	15	6	Q	0	0	7	30.1
2511	Wood Furniture, Except Upholstered	59	Q	45	*	*	Q	Q	0	0	1	33.5
26	Paper and Allied Products	1,315	174	969	12	84	71	Q	Q	Q	15	17.3
2611	Pulp Mills	W	5	65	0	4	*	0	0	0	0	34.5
2621	Paper Mills	465	73	375	0	10	58	0	0	0	7	21.6
2631	Paperboard Mills	W	17	84	W	14	4	0	0	0	2	7.7
27	Printing and Publishing	W	89	207	7	64	3	*	0	0	10	33.6
28	Chemicals and Allied Products	W	412	639	19	392	17	67	0	0	19	30.1
2812	Alkalies and Chlorine	1	*	1	0	*	0	0	0	0	0	17.6
2813	Industrial Gases	W	0	1	0	0	0	0	0	0	0	77.1
2816	Inorganic Pigments	W	8	7	*	8	0	0	0	0	0	16.9
2819	Industrial Inorganic Chemicals, nec.	W	20	18	1	18	4	W	0	0	0	29.0
2821	Plastics Materials and Resins	W	57	42	2	54	1	Q	0	0	0	41.2
2822	Synthetic Rubber	W	1	4	*	*	*	0	0	0	*	39.9
2823	Cellulosic Manmade Fibers	W	*	*	*	*	*	0	0	0	0	1.4
2824	Organic Fibers, Noncellulosic	W	W	30	W	W	*	W	0	0	W	16.6
2861	Gum and Wood Chemicals	W	0	W	0	0	0	0	0	0	0	15.0
2865	Cyclic Crudes and Intermediates	279	Q	W	0	W	0	W	0	0	Q	107.5
2869	Industrial Organic Chemicals, nec.	265	242	16	W	234	*	0	0	0	W	26.2
2873	Nitrogenous Fertilizers	4	1	3	W	1	0	0	0	0	0	34.3
2874	Phosphatic Fertilizers	3	*	3	*	0	0	0	0	0	0	14.2
2895	Carbon Black	W	0	*	0	0	0	0	0	0	0	55.7
29	Petroleum and Coal Products	11,719	7,741	3,752	72	6,655	957	1,448	Q	Q	W	14.5
2911	Petroleum Refining	W	7,444	3,589	W	6,453	669	W	0	0	W	12.6
30	Rubber and Misc. Plastics Products	824	103	660	37	42	26	Q	*	0	12	23.8
3011	Tires and Inner Tubes	95	5	87	W	W	0	0	0	0	0	14.7
308	Miscellaneous Plastics Products, nec.	632	78	504	W	W	26	Q	*	0	11	27.0
31	Leather and Leather Products	W	Q	16	1	Q	*	W	0	0	0	44.7
32	Stone, Clay and Glass Products	1,057	319	706	11	226	Q	6	Q	0	11	30.1
3211	Flat Glass	20	2	18	1	2	*	0	0	0	0	41.5
3221	Glass Containers	98	56	38	0	54	W	*	0	0	W	18.4
3229	Pressed and Blown Glass, nec.	W	17	21	*	16	W	5	0	0	0	28.7
3241	Cement, Hydraulic	9	*	8	*	*	*	*	0	0	*	36.1
3274	Lime	5	0	5	0	0	0	0	0	0	0	69.6
3296	Mineral Wool	W	39	35	Q	39	3	0	0	0	0	21.8
33	Primary Metal Industries	1,472	228	1,187	11	189	41	13	0	0	8	19.3
331	Blast Furnace and Basic Steel Products	W	53	257	2	47	12	Q	0	0	2	35.5
3312	Blast Furnaces and Steel Mills	W	29	49	*	28	4	0	0	0	W	19.3
3313	Electrometallurgical Products	5	*	5	0	0	0	0	0	0	0	69.6
3321	Gray and Ductile Iron Foundries	141	11	121	*	10	Q	0	0	0	W	34.1
3331	Primary Copper	W	*	W	0	0	0	0	0	0	*	1.6
3334	Primary Aluminum	W	15	W	0	12	W	0	0	0	W	1.4
3339	Primary Nonferrous Metals, nec.	17	2	15	*	*	W	0	0	0	0	29.6
3353	Aluminum Sheet, Plate, and Foil	54	11	42	0	8	W	0	0	0	0	11.3
34	Fabricated Metal Products	1,334	299	957	61	216	38	14	Q	0	W	34.8
35	Industrial Machinery and Equipment	885	176	625	57	137	10	Q	Q	*	18	30.0
357	Computer and Office Equipment	W	Q	*	Q	Q	0	0	0	0	0	92.2
36	Electronic and Other Electric Equipment	622	245	336	Q	190	19	8	0	0	Q	37.3

See footnotes at end of table.

Table A40. Capability to Switch from LPG to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1 (Continued)
(Estimates in Thousand Barrels)

		LPG			Alternative Types of Energy ^b							RSE Row Factors
SIC Code ^a	Industry Group and Industry	Total Consumed ^c	Switchable	Not Switchable	Electricity Receipts ^d	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	Coal Coke and Breeze	Other ^e	
RSE Column Factors:		0.4	0.6	0.5	1.1	0.7	1.1	1.2	2.8	2.2	1.1	
37	Transportation Equipment	W	129	734	21	69	18	Q	0	0	Q	36.9
3711	Motor Vehicles and Car Bodies	88	Q	63	*	Q	*	0	0	0	0	52.1
3714	Motor Vehicle Parts and Accessories	W	47	302	13	27	Q	0	0	0	Q	44.1
38	Instruments and Related Products	W	12	63	Q	8	Q	*	0	0	0	51.7
3841	Surgical and Medical Instruments	30	Q	Q	Q	*	*	0	0	0	0	57.3
39	Misc. Manufacturing Industries	W	84	53	Q	73	Q	Q	Q	Q	Q	55.8
Total		25,949	10,842	13,528	460	8,949	1,537	1,690	81	Q	661	10.0
Census Region and Division												
Northeast		4,663	2,000	2,324	W	1,244	856	690	Q	Q	W	18.9
New England		W	126	1,094	W	53	64	*	0	0	Q	21.3
Middle Atlantic		W	1,875	1,230	W	1,191	792	690	Q	Q	W	21.3
Midwest		5,103	1,697	2,989	162	1,359	84	492	Q	3	W	13.7
East North Central		W	1,278	1,802	W	1,066	48	W	2	2	W	15.9
West North Central		W	420	1,187	W	293	36	W	Q	1	17	23.2
South		7,032	1,983	4,517	176	1,573	324	145	Q	3	W	16.8
South Atlantic		W	1,025	2,352	143	760	239	W	Q	Q	Q	20.9
East South Central		W	417	853	W	356	42	W	Q	Q	15	19.3
West South Central		W	542	1,312	W	458	43	W	Q	Q	W	18.6
West		9,151	5,161	3,698	W	4,773	273	363	0	Q	W	14.0
Mountain		673	226	408	8	204	71	W	0	0	W	19.5
Pacific		8,479	4,935	3,290	W	4,569	202	W	0	Q	W	15.5
Total		25,949	10,842	13,528	460	8,949	1,537	1,690	81	Q	661	9.9
Value of Shipments and Receipts ^f (million dollars)												
Under 20		4,709	1,002	3,062	W	627	493	Q	61	Q	W	21.9
20-49		3,476	754	2,430	163	564	181	127	Q	3	72	21.2
50-99		2,634	578	1,833	54	429	61	Q	*	Q	37	16.9
100-249		2,411	646	1,619	51	488	117	30	0	0	26	13.7
250-499		3,376	1,303	1,977	12	896	201	315	0	0	Q	16.1
500 and Over		9,342	6,559	2,607	W	5,946	483	921	0	0	W	13.8
Total		25,949	10,842	13,528	460	8,949	1,537	1,690	81	Q	661	9.9
Employment Size ^f												
Under 50		2,671	819	1,525	84	515	447	Q	59	Q	W	27.1
50-99		2,116	355	1,565	46	279	56	78	*	1	35	23.2
100-249		5,572	1,237	3,951	116	754	191	296	Q	3	39	14.4
250-499		4,376	1,364	2,598	90	1,228	128	238	Q	Q	93	18.0
500-999		5,323	2,879	2,264	108	2,056	691	W	0	0	W	12.4
1,000 and Over		5,892	4,187	1,624	16	4,117	25	W	0	0	21	16.1
Total		25,949	10,842	13,528	460	8,949	1,537	1,690	81	Q	661	9.9

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

^b "Alternative Types of Energy" consist of those energy sources that could have been substituted for LPG during 1994. The quantities are expressed in thousands of barrels, and therefore represent the quantity of LPG that could have been displaced by the given alternative type of energy.

^c "Total Consumed" represents those quantities (Total Inputs) of LPG that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^d "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^e "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of LPG.

^f Value of Shipments and Receipts and Employment Size categories were supplied by the Bureau of the Census. See Appendix B.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q= Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A40. Number of Establishments by Capability to Switch from LPG to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2

SIC Code ^a	Industry Group and Industry	LPG ^b			Alternative Types of Energy ^c							RSE Row Factors
		Total Consumed ^d	Switchable	Not Switchable	Electricity Receipts ^e	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	Coal Coke and Breeze	Other ^f	
	RSE Column Factors:	0.4	0.8	0.4	1.1	0.8	1.1	1.3	2.5	2.4	1.2	
20	Food and Kindred Products	3,873	605	1,907	131	455	163	33	W	W	70	18.5
2011	Meat Packing Plants	121	63	50	4	61	57	0	0	0	Q	39.3
2033	Canned Fruits and Vegetables	287	30	160	9	23	3	0	0	0	W	27.3
2037	Frozen Fruits and Vegetables	Q	Q	Q	Q	W	W	0	0	0	Q	0.0
2046	Wet Corn Milling	16	0	13	0	0	0	0	0	0	0	24.3
2051	Bread, Cake, and Related Products	179	66	92	W	52	W	W	0	0	0	44.8
2061	Cane Sugar, Except Refining	6	W	W	0	0	W	0	0	0	0	27.1
2062	Cane Sugar Refining	11	W	8	0	W	0	0	0	0	0	40.5
2063	Beet Sugar	28	3	26	0	W	0	0	0	0	0	5.2
2075	Soybean Oil Mills	13	6	5	0	5	W	W	0	0	W	1.3
2082	Malt Beverages	80	35	46	0	35	0	0	0	0	0	24.4
21	Tobacco Products	48	W	34	W	0	0	0	0	0	W	23.7
22	Textile Mill Products	1,282	214	911	31	104	Q	6	0	0	9	38.3
23	Apparel and Other Textile Products	1,330	123	691	31	70	20	W	0	0	27	42.1
24	Lumber and Wood Products	5,075	419	2,297	235	268	121	128	90	8	90	21.8
2421	Sawmills and Planing Mills, General	447	44	199	Q	Q	Q	0	0	0	14	36.9
2436	Softwood Veneer and Plywood	160	25	125	0	W	18	0	0	0	7	12.9
2493	Reconstituted Wood Products	129	Q	100	Q	Q	Q	0	0	0	W	82.1
25	Furniture and Fixtures	2,669	494	1,459	174	Q	54	Q	0	0	212	36.5
2511	Wood Furniture, Except Upholstered	460	Q	196	W	Q	Q	W	0	0	Q	58.9
26	Paper and Allied Products	2,321	209	1,336	74	74	52	W	W	4	36	22.1
2611	Pulp Mills	36	5	33	0	3	W	0	0	0	0	12.5
2621	Paper Mills	198	19	167	0	9	8	0	0	0	4	8.0
2631	Paperboard Mills	117	14	97	W	8	7	0	0	0	5	5.2
27	Printing and Publishing	3,601	388	2,698	241	111	42	16	0	0	W	33.5
28	Chemicals and Allied Products	2,768	265	1,924	123	182	95	66	0	0	71	26.8
2812	Alkalies and Chlorine	13	W	11	0	W	0	0	0	0	0	12.5
2813	Industrial Gases	12	0	12	0	0	0	0	0	0	0	46.1
2816	Inorganic Pigments	47	11	34	3	11	0	0	0	0	0	7.5
2819	Industrial Inorganic Chemicals, nec.	169	28	115	8	11	6	W	0	0	0	25.0
2821	Plastics Materials and Resins	224	50	131	16	37	15	W	0	0	0	24.4
2822	Synthetic Rubber	23	5	19	W	3	W	0	0	0	3	29.3
2823	Cellulosic Manmade Fibers	3	W	W	W	W	W	0	0	0	0	1.4
2824	Organic Fibers, Noncellulosic	38	5	32	W	5	W	W	0	0	W	10.2
2861	Gum and Wood Chemicals	21	0	15	0	0	0	0	0	0	0	8.9
2865	Cyclic Crudes and Intermediates	78	16	59	0	9	0	W	0	0	W	31.0
2869	Industrial Organic Chemicals, nec.	167	14	102	W	6	W	0	0	0	W	26.6
2873	Nitrogenous Fertilizers	28	5	20	W	4	0	0	0	0	0	22.5
2874	Phosphatic Fertilizers	13	W	10	W	0	0	0	0	0	0	8.2
2895	Carbon Black	W	0	W	0	0	0	0	0	0	0	53.8
29	Petroleum and Coal Products	675	169	456	23	118	Q	Q	Q	Q	16	41.4
2911	Petroleum Refining	99	67	35	3	56	8	17	0	0	4	5.4
30	Rubber and Misc. Plastics Products	4,193	720	3,111	268	323	157	Q	W	0	82	23.9
3011	Tires and Inner Tubes	88	4	72	W	W	0	0	0	0	0	14.4
308	Miscellaneous Plastics Products, nec.	3,682	659	2,738	263	294	156	Q	W	0	74	25.9
31	Leather and Leather Products	158	23	119	5	20	W	6	0	0	0	54.1
32	Stone, Clay and Glass Products	2,320	624	1,508	217	302	130	Q	W	0	103	32.3
3211	Flat Glass	47	6	41	W	4	W	0	0	0	0	15.9
3221	Glass Containers	45	14	31	0	12	W	W	0	0	W	12.3
3229	Pressed and Blown Glass, nec.	36	10	23	W	9	4	Q	0	0	0	59.2
3241	Cement, Hydraulic	67	5	53	W	4	W	W	0	0	4	25.3
3274	Lime	22	0	18	0	0	0	0	0	0	0	30.6
3296	Mineral Wool	112	34	96	W	34	9	0	0	0	0	11.6
33	Primary Metal Industries	2,259	284	1,586	51	168	95	26	0	0	42	18.0
331	Blast Furnace and Basic Steel Products	495	70	405	17	43	30	W	0	0	7	29.6
3312	Blast Furnaces and Steel Mills	103	22	68	W	12	8	0	0	0	3	10.1
3313	Electrometallurgical Products	18	W	W	0	0	0	0	0	0	0	62.7
3321	Gray and Ductile Iron Foundries	286	15	166	W	9	Q	0	0	0	W	31.9
3331	Primary Copper	4	W	W	0	0	0	0	0	0	W	1.7
3334	Primary Aluminum	28	8	20	0	7	W	0	0	0	W	14.3
3339	Primary Nonferrous Metals, nec.	32	4	31	W	W	W	0	0	0	0	41.5
3353	Aluminum Sheet, Plate, and Foil	35	7	28	0	5	W	0	0	0	0	6.4
34	Fabricated Metal Products	8,278	1,267	5,922	523	670	392	6	W	0	231	27.1
35	Industrial Machinery and Equipment	9,191	1,151	5,367	485	641	251	127	Q	W	Q	25.6
357	Computer and Office Equipment	Q	Q	9	Q	Q	0	0	0	0	0	67.5
36	Electronic and Other Electric Equipment	1,849	204	1,153	Q	75	Q	Q	0	0	Q	32.7

See footnotes at end of table.

Table A40. Number of Establishments by Capability to Switch from LPG to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2 (Continued)

		LPG ^b			Alternative Types of Energy ^c							RSE Row Factors
		Total Consumed ^d	Switchable	Not Switchable	Electricity Receipts ^e	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	Coal Coke and Breeze	Other ^f	
SIC Code ^a	Industry Group and Industry											
RSE Column Factors:		0.4	0.8	0.4	1.1	0.8	1.1	1.3	2.5	2.4	1.2	
37	Transportation Equipment	2,643	452	2,007	335	164	111	Q	0	0	Q	37.7
3711	Motor Vehicles and Car Bodies	Q	Q	Q	W	Q	W	0	0	0	0	0.0
3714	Motor Vehicle Parts and Accessories	803	126	633	53	51	27	0	0	0	W	41.4
38	Instruments and Related Products	825	W	603	W	13	W	W	0	0	0	45.4
3841	Surgical and Medical Instruments	198	Q	149	Q	W	W	0	0	0	0	58.6
39	Misc. Manufacturing Industries	1,079	183	722	Q	157	48	Q	Q	W	10	45.0
Total		56,438	7,863	35,812	3,134	4,037	2,004	948	400	112	1,531	11.2

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

^b This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.

^c "Alternative Types of Energy" consist of those energy sources that could have been substituted for LPG during 1994. The quantities are expressed in thousands of barrels, and therefore represent the quantity of LPG that could have been displaced by the given alternative type of energy.

^d "Total Consumed" represents those quantities (Total Inputs) of LPG that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^e "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^f "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of LPG.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q= Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A41. Number of Establishments by Activities Related to Electric Motor Systems and Their Method of Evaluation, by Industry Group and Selected Industries, 1994

SIC Code ^a Industry Group and Industry		Total	Most Commonly Used Method of Evaluation for Purchases and Modifications of Electric Motor Systems						RSE Row Factors
			Evaluation Based Primarily on All Expected Costs over Projected Lifetime of System	Evaluation Based Primarily on Initial Purchase Prices of Competing Systems	Another Type of Evaluation Is Used	Evaluation Is Done But Not Certain How It Is Done	No Evaluation Is Done	Not Certain If Any Type of Evaluation Is Done	
RSE Column Factors:		0.1	0.9	1.2	1.9	2.0	1.5	1.4	
20	Food and Kindred Products	14,698	4,332	2,789	373	584	2,556	2,544	8.2
2011	Meat Packing Plants	759	100	124	10	34	76	323	13.6
2033	Canned Fruits and Vegetables	531	97	191	13	25	32	88	14.8
2037	Frozen Fruits and Vegetables	232	Q	Q	Q	Q	Q	Q	9.0
2046	Wet Corn Milling	58	18	14	W	W	3	6	10.8
2051	Bread, Cake, and Related Products	1,303	402	202	26	18	253	294	18.6
2061	Cane Sugar, Except Refining	43	11	14	0	6	6	7	7.5
2062	Cane Sugar Refining	20	5	8	0	W	W	W	18.2
2063	Beet Sugar	41	13	13	W	5	W	3	4.1
2075	Soybean Oil Mills	95	52	15	W	W	10	5	1.2
2082	Malt Beverages	140	115	0	W	W	W	0	9.7
21	Tobacco Products	121	67	16	W	W	20	0	8.5
22	Textile Mill Products	4,428	1,213	726	138	W	681	978	15.7
23	Apparel and Other Textile Products	18,019	1,363	919	89	439	5,954	4,442	11.4
24	Lumber and Wood Products	21,623	3,278	2,527	472	528	6,628	3,701	9.0
2421	Sawmills and Planing Mills, General	3,545	811	421	78	80	588	667	13.1
2436	Softwood Veneer and Plywood	182	71	21	18	7	10	37	9.8
2493	Reconstituted Wood Products	246	63	Q	Q	Q	Q	Q	21.9
25	Furniture and Fixtures	7,691	826	1,150	52	122	3,152	1,286	12.3
2511	Wood Furniture, Except Upholstered	1,548	122	431	Q	0	709	148	18.1
26	Paper and Allied Products	5,582	1,495	1,072	385	344	979	795	10.2
2611	Pulp Mills	55	29	9	3	3	W	W	8.3
2621	Paper Mills	310	175	52	37	11	3	17	4.5
2631	Paperboard Mills	219	121	45	15	6	3	14	2.9
27	Printing and Publishing	37,384	2,703	2,597	202	960	14,861	6,853	9.2
28	Chemicals and Allied Products	9,565	2,556	2,165	303	450	2,238	972	9.4
2812	Alkalies and Chlorine	44	15	8	4	5	4	4	4.4
2813	Industrial Gases	623	387	29	W	0	15	27	12.3
2816	Inorganic Pigments	81	34	17	4	8	10	7	4.6
2819	Industrial Inorganic Chemicals, nec.	568	185	136	31	39	52	108	14.8
2821	Plastics Materials and Resins	456	139	104	29	28	42	32	11.2
2822	Synthetic Rubber	63	26	17	5	W	8	3	11.8
2823	Cellulosic Manmade Fibers	11	3	W	3	0	0	0	1.4
2824	Organic Fibers, Noncellulosic	73	39	13	6	W	4	7	5.1
2861	Gum and Wood Chemicals	60	18	16	W	W	7	10	4.3
2865	Cyclic Crudes and Intermediates	187	70	50	6	30	6	13	13.5
2869	Industrial Organic Chemicals, nec.	631	164	217	21	17	73	55	13.5
2873	Nitrogenous Fertilizers	118	46	15	3	6	22	20	7.2
2874	Phosphatic Fertilizers	69	26	16	5	W	9	11	2.7
2895	Carbon Black	23	9	3	W	0	W	9	9.3
29	Petroleum and Coal Products	1,971	613	419	88	199	163	254	14.8
2911	Petroleum Refining	247	116	44	13	15	8	27	3.3
30	Rubber and Misc. Plastics Products	11,952	2,746	2,278	470	562	2,468	2,292	9.2
3011	Tires and Inner Tubes	112	50	35	4	W	3	13	10.0
308	Miscellaneous Plastics Products, nec.	9,967	2,271	1,833	419	518	2,051	1,964	9.6
31	Leather and Leather Products	1,356	120	55	W	49	205	343	18.7
32	Stone, Clay and Glass Products	11,970	2,339	1,569	188	453	3,158	2,614	11.8
3211	Flat Glass	68	29	12	8	W	8	W	8.9
3221	Glass Containers	78	32	4	0	W	0	25	6.5
3229	Pressed and Blown Glass, nec.	163	84	Q	W	3	0	Q	20.6
3241	Cement, Hydraulic	190	98	21	7	7	5	43	11.3
3274	Lime	84	33	19	0	5	3	14	11.5
3296	Mineral Wool	174	95	39	10	9	W	W	6.7
33	Primary Metal Industries	5,171	1,469	1,170	215	250	828	798	9.1
331	Blast Furnace and Basic Steel Products	981	240	342	23	60	97	90	12.4
3312	Blast Furnaces and Steel Mills	284	95	52	8	34	29	37	4.1
3313	Electrometallurgical Products	36	11	11	0	Q	W	Q	21.7
3321	Gray and Ductile Iron Foundries	517	185	142	20	31	39	59	16.2
3331	Primary Copper	20	11	4	0	0	W	0	1.5
3334	Primary Aluminum	44	26	4	4	0	W	5	7.2
3339	Primary Nonferrous Metals, nec.	88	32	Q	W	3	12	11	13.3
3353	Aluminum Sheet, Plate, and Foil	55	20	13	7	4	5	5	4.0

See footnotes at end of table.

Table A41. Number of Establishments by Activities Related to Electric Motor Systems and Their Method of Evaluation, by Industry Group and Selected Industries, 1994 (Continued)

SIC Code ^a	Industry Group and Industry	Total	Most Commonly Used Method of Evaluation for Purchases and Modifications of Electric Motor Systems						RSE Row Factors
			Evaluation Based Primarily on All Expected Costs over Lifetime of System	Evaluation Based Primarily on Initial Purchase Prices of Competing Systems	Another Type of Evaluation Is Used	Evaluation Is Done But Not Certain How It Is Done	No Evaluation Is Done	Not Certain If Any Type of Evaluation Is Done	
	RSE Column Factors:	0.1	0.9	1.2	1.9	2.0	1.5	1.4	
34	Fabricated Metal Products	26,262	2,909	4,549	322	1,120	8,546	5,313	9.9
35	Industrial Machinery and Equipment	33,837	3,191	4,267	866	913	10,887	7,320	8.8
357	Computer and Office Equipment	1,410	410	58	8	Q	260	252	22.1
36	Electronic and Other Electric Equipment	11,264	2,009	1,831	89	179	4,009	1,616	11.2
37	Transportation Equipment	7,240	1,005	1,022	124	433	2,110	1,853	14.1
3711	Motor Vehicles and Car Bodies	322	Q	Q	W	Q	Q	Q	9.0
3714	Motor Vehicle Parts and Accessories	2,062	326	389	80	54	927	214	17.9
38	Instruments and Related Products	7,071	1,424	952	135	119	2,785	1,143	14.5
3841	Surgical and Medical Instruments	878	222	46	Q	Q	377	138	19.7
39	Misc. Manufacturing Industries	9,994	770	1,017	186	286	4,025	2,463	14.5
	Total	247,199	36,429	33,090	4,752	8,216	76,254	47,579	3.5

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A42. Number of Establishments by Activities Related to Listings of Electric Motor Systems, by Industry Group and Selected Industries, 1994

SIC Code ^a	Industry Group and Industry	Total	Listing Kept of All Operating Electric Motors	Listing Kept of Some Operating Electric Motors	No Listing at All Is Kept	Existence of Listing Is Not Known	RSE Row Factors
RSE Column Factors:		0.1	0.8	0.8	0.7	1.0	
20	Food and Kindred Products	14,698	2,024	3,125	6,067	2,214	12.1
2011	Meat Packing Plants	759	164	110	219	191	23.4
2033	Canned Fruits and Vegetables	531	70	174	179	72	22.4
2037	Frozen Fruits and Vegetables	232	Q	Q	Q	139	21.6
2046	Wet Corn Milling	58	17	13	14	6	15.3
2051	Bread, Cake, and Related Products	1,303	172	178	741	125	23.2
2061	Cane Sugar, Except Refining	43	17	19	4	W	10.9
2062	Cane Sugar Refining	20	9	W	W	W	22.4
2063	Beet Sugar	41	14	21	W	W	4.6
2075	Soybean Oil Mills	95	43	24	12	7	1.3
2082	Malt Beverages	140	20	39	75	W	13.2
21	Tobacco Products	121	40	37	W	W	10.6
22	Textile Mill Products	4,428	490	799	1,658	1,032	23.6
23	Apparel and Other Textile Products	18,019	883	1,038	8,260	3,118	20.4
24	Lumber and Wood Products	21,623	1,422	2,114	10,964	3,053	14.7
2421	Sawmills and Planing Mills, General	3,545	455	467	1,185	581	20.3
2436	Softwood Veneer and Plywood	182	60	55	32	20	12.1
2493	Reconstituted Wood Products	246	64	Q	Q	119	38.1
25	Furniture and Fixtures	7,691	601	499	4,386	1,316	22.8
2511	Wood Furniture, Except Upholstered	1,548	Q	210	987	88	29.5
26	Paper and Allied Products	5,582	812	1,123	2,184	1,018	12.8
2611	Pulp Mills	55	34	9	0	5	8.5
2621	Paper Mills	310	199	70	10	18	4.6
2631	Paperboard Mills	219	109	74	10	15	2.8
27	Printing and Publishing	37,384	486	1,581	20,457	5,967	14.4
28	Chemicals and Allied Products	9,565	1,659	2,110	3,851	1,204	11.8
2812	Alkalies and Chlorine	44	21	10	9	4	5.5
2813	Industrial Gases	623	324	85	37	15	14.2
2816	Inorganic Pigments	81	20	31	22	8	6.0
2819	Industrial Inorganic Chemicals, nec.	568	150	158	122	127	16.8
2821	Plastics Materials and Resins	456	117	158	87	28	12.8
2822	Synthetic Rubber	63	26	18	16	W	14.8
2823	Cellulosic Manmade Fibers	11	4	6	0	0	1.3
2824	Organic Fibers, Noncellulosic	73	18	33	8	12	5.8
2861	Gum and Wood Chemicals	60	6	4	38	6	8.6
2865	Cyclic Crudes and Intermediates	187	73	76	11	15	17.5
2869	Industrial Organic Chemicals, nec.	631	178	153	144	74	18.7
2873	Nitrogenous Fertilizers	118	36	23	32	20	10.6
2874	Phosphatic Fertilizers	69	26	16	15	11	3.6
2895	Carbon Black	23	14	W	W	W	12.5
29	Petroleum and Coal Products	1,971	572	460	423	286	18.9
2911	Petroleum Refining	247	147	43	11	25	4.0
30	Rubber and Misc. Plastics Products	11,952	906	2,181	5,076	2,784	14.0
3011	Tires and Inner Tubes	112	9	55	23	22	16.0
308	Miscellaneous Plastics Products, nec.	9,967	751	1,736	4,149	2,534	14.5
31	Leather and Leather Products	1,356	Q	90	W	W	28.9
32	Stone, Clay and Glass Products	11,970	1,094	1,554	5,535	2,218	17.3
3211	Flat Glass	68	12	27	19	W	11.4
3221	Glass Containers	78	6	18	3	39	10.1
3229	Pressed and Blown Glass, nec.	163	16	74	Q	Q	34.0
3241	Cement, Hydraulic	190	116	34	W	33	14.7
3274	Lime	84	37	22	4	11	16.2
3296	Mineral Wool	174	74	79	W	12	7.8
33	Primary Metal Industries	5,171	614	1,220	2,202	739	13.5
331	Blast Furnace and Basic Steel Products	981	133	218	336	177	13.9
3312	Blast Furnaces and Steel Mills	284	74	77	49	58	5.4
3313	Electrometallurgical Products	36	9	14	W	9	35.4
3321	Gray and Ductile Iron Foundries	517	68	236	88	81	22.6
3331	Primary Copper	20	4	12	0	W	1.2
3334	Primary Aluminum	44	16	14	7	4	11.7
3339	Primary Nonferrous Metals, nec.	88	17	13	39	13	20.4
3353	Aluminum Sheet, Plate, and Foil	55	12	27	6	7	5.1

See footnotes at end of table.

Table A42. Number of Establishments by Activities Related to Listings of Electric Motor Systems, by Industry Group and Selected Industries, 1994 (Continued)

SIC Code ^a	Industry Group and Industry	Total	Listing Kept of All Operating Electric Motors	Listing Kept of Some Operating Electric Motors	No Listing at All Is Kept	Existence of Listing Is Not Known	RSE Row Factors
RSE Column Factors:		0.1	0.8	0.8	0.7	1.0	
34	Fabricated Metal Products	26,262	1,308	2,654	14,704	4,589	17.1
35	Industrial Machinery and Equipment	33,837	396	2,370	18,821	6,278	19.0
357	Computer and Office Equipment	1,410	22	88	522	556	31.0
36	Electronic and Other Electric Equipment	11,264	513	1,362	6,279	1,505	22.8
37	Transportation Equipment	7,240	373	1,253	3,203	1,626	23.4
3711	Motor Vehicles and Car Bodies	322	W	Q	Q	Q	12.7
3714	Motor Vehicle Parts and Accessories	2,062	273	405	952	246	31.3
38	Instruments and Related Products	7,071	155	999	4,121	1,152	23.9
3841	Surgical and Medical Instruments	878	15	99	530	177	30.8
39	Misc. Manufacturing Industries	9,994	531	768	6,063	1,429	27.3
	Total	247,199	14,942	27,337	124,983	41,729	5.8

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: •To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A43. Total Inputs of Selected Wood and Wood-Related Products for Heat, Power, and Electricity Generation by Census Region, Industry Group, and Selected Industries, 1994
(Estimates in Million Btu)

SIC Code ^a	Industry Group and Industry	Selected Wood and Wood-Related Products						RSE Row Factors
		Pulping Liquor or Black Liquor	Biomass					
			Biomass Total ^b	Agricultural Waste ^c	Wood Harvested Directly from Trees ^d	Wood Residues and Byproducts from Mill Processing ^e	Wood-Related and Paper-Related Refuse ^f	
Total United States								
	RSE Column Factors:	0.6	0.6	2.2	0.9	0.7	1.8	
20	Food and Kindred Products	0	107,269	93,960	4,113	4,054	5,142	15.8
24	Lumber and Wood Products	0	276,136	Q	29,799	237,415	8,771	11.1
2421	Sawmills and Planing Mills, General	0	151,060	0	15,496	129,422	6,141	16.2
2436	Softwood Veneer and Plywood	0	57,543	0	8,373	49,169	Q	19.0
2493	Reconstituted Wood Products	0	31,734	0	2,670	26,896	2,168	19.8
25	Furniture and Fixtures	0	12,963	0	1,305	11,113	545	16.8
2511	Wood Furniture, Except Upholstered	0	11,281	0	1,305	9,745	230	19.1
26	Paper and Allied Products	882,216	406,248	1,927	150,282	238,304	15,735	5.1
2611	Pulp Mills	151,477	41,181	0	21,951	19,164	66	16.4
2621	Paper Mills	379,867	193,241	1,686	79,736	103,411	8,408	7.6
2631	Paperboard Mills	350,361	168,940	W	47,734	114,927	W	5.2
21-23 & 27-39	Other Manufacturing	0	27,904	Q	3,835	12,883	6,676	21.5
	Total	882,216	830,520	100,549	189,334	503,769	36,869	5.1
Northeast Census Region								
	RSE Column Factors:	0.7	0.8	1.6	0.9	0.8	1.6	
20	Food and Kindred Products	0	W	0	0	W	W	38.0
24	Lumber and Wood Products	0	11,781	0	1,441	8,278	Q	38.3
25	Furniture and Fixtures	0	1,397	0	W	895	W	32.8
26	Paper and Allied Products	53,729	30,182	0	16,079	12,446	1,658	12.3
21-23 & 27-39	Other Manufacturing	0	W	0	W	W	W	12.7
	Total	53,729	43,645	0	18,049	21,719	3,877	15.4
Midwest Census Region								
	RSE Column Factors:	0.7	0.8	1.6	0.9	0.8	1.6	
20	Food and Kindred Products	0	W	0	0	0	W	0.9
24	Lumber and Wood Products	0	21,858	0	W	18,162	W	26.5
25	Furniture and Fixtures	0	W	0	W	W	W	32.1
26	Paper and Allied Products	44,559	40,527	W	11,634	26,775	W	14.1
21-23 & 27-39	Other Manufacturing	0	8,956	W	W	W	W	22.2
	Total	44,559	73,345	Q	15,611	47,735	5,202	13.4
South Census Region								
	RSE Column Factors:	0.7	0.8	1.6	0.9	0.8	1.6	
20	Food and Kindred Products	0	88,453	77,838	W	W	W	19.8
24	Lumber and Wood Products	0	151,486	0	16,806	131,491	3,189	13.5
25	Furniture and Fixtures	0	9,495	0	W	W	W	19.8
26	Paper and Allied Products	677,191	292,470	1,433	99,304	182,415	9,318	6.3
21-23 & 27-39	Other Manufacturing	0	18,728	0	2,320	11,633	4,774	24.6
	Total	677,191	560,633	79,270	123,272	335,536	22,555	6.3

See footnotes at end of table.

Table A43. Total Inputs of Selected Wood and Wood-Related Products for Heat, Power, and Electricity Generation by Census Region, Industry Group, and Selected Industries, 1994 (Continued)
(Estimates in Million Btu)

SIC Code ^a	Industry Group and Industry	Selected Wood and Wood-Related Products						RSE Row Factors
		Pulping Liquor or Black Liquor	Biomass					
			Biomass Total ^b	Agricultural Waste ^c	Wood Harvested Directly from Trees ^d	Wood Residues and Byproducts from Mill Processing ^e	Wood-Related and Paper-Related Refuse ^f	
West Census Region								
RSE Column Factors:		0.7	0.8	1.6	0.9	0.8	1.6	
20	Food and Kindred Products	0	18,685	16,123	W	2,537	W	21.4
24	Lumber and Wood Products	0	91,010	Q	W	79,483	W	17.0
25	Furniture and Fixtures	0	W	0	0	W	0	0.0
26	Paper and Allied Products	106,737	43,069	W	23,265	16,669	W	12.3
21-23 & 27-39	Other Manufacturing	0	W	W	0	W	W	35.4
	Total	106,737	152,897	16,480	32,403	98,779	5,236	10.6

^a See Appendices B and F for descriptions of the Standard Industrial Classification system.

^b "Biomass Total" is the sum of the estimates for these four components: agricultural waste, wood harvested directly from trees, wood residues and byproducts from mill processing, and wood-related and paper-related refuse. "Biomass Total" does not include pulping liquor or black liquor.

^c Includes bagasse, rice hulls, nut shells, and orchard prunings.

^d Includes roundwood, wood chips, and tree bark.

^e Includes sawdust, shavings, slabs, and bark.

^f Includes scrap, wastepaper, wood pallets, and packing materials.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A44. Total First Use (formerly Primary Consumption) of Energy for All Purposes by Selected Energy Sources, 1994
(Estimates in Trillion Btu)

Selected Energy Sources	Total	RSE Row Factors
	Total United States	
RSE Column Factor:	1.0	
Coal	2,105	4.0
Natural Gas	6,835	3.0
Net Electricity	2,656	2.0
<i>Purchased Electricity</i>	2,689	1.0
<i>Transfers In</i>	53	4.0
<i>Generation from Noncombustible Renewable Resources</i> ..	10	10.0
<i>Electricity Sales/Transfers Out</i>	96	4.0
Coke and Breeze	449	8.0
Residual Fuel Oil	490	3.0
Distillate Fuel Oil	158	4.0
Liquefied Petroleum Gases	1,631	6.0
Other	7,926	2.0
<i>Asphalt and Road Oil</i>	1,224	0.0
<i>Lubricants</i>	416	0.0
<i>Kerosene</i>	54	36.0
<i>Finished Motor Gasoline</i>	10	5.0
<i>Naphtha < 401 Degrees</i>	392	0.0
<i>Other Oils >=401 Degrees</i>	799	0.0
<i>Special Naphthas</i>	137	0.0
<i>Waxes</i>	48	0.0
<i>Miscellaneous Nonfuel Products</i>	93	0.0
<i>Crude Oil</i>	7	23.0
<i>Pentanes Plus</i>	--	0.0
<i>Unfinished Oils</i>	--	0.0
<i>Motor Gas Blending Compounds</i>	--	0.0
<i>Aviation Gas Blending Compounds</i>	--	0.0
<i>Petroleum Coke</i>	916	4.0
<i>Still Gas/Waste Gas</i>	1,474	3.0
<i>Pulping Liquor or Black Liquor</i>	882	3.0
<i>Biomass Total</i>	951	3.0
<i>Agricultural Waste</i>	109	13.0
<i>Wood Harvested Directly from Trees</i>	251	6.0
<i>Wood Residues and Byproducts from Mill Processing</i>	540	4.0
<i>Wood-Related and Paper-Related Refuse</i>	51	7.0
<i>Net Steam/Hot Water</i>	248	5.0
<i>Miscellaneous</i>	274	7.0
Shipments of Energy Sources Produced Onsite ^a	587	9.0
Total ^b	21,663	2.0

^a "Shipments of Energy Sources Produced Onsite" are those shipments produced or transformed onsite from the nonfuel use of other energy sources. For example, at an establishment that processes coal to make coke for later use, the entire quantity of coal is counted as first use. Any onsite consumption of coke is not counted as first use because it would duplicate the coal use. If some of the coke is then sold to another establishment, then that second establishment will consider this coke to be a shipment of an offsite-produced energy source. Hence, the second establishment will count this coke as its first use, thereby resulting in double counting. In order to eliminate the double counting, the energy equivalent of the coke shipment must be subtracted from first use.

^b "Total" is the sum of all of the listed energy sources, including "Other," minus the shipments of energy sources produced onsite. It is the total amount of first use of energy for all (fuel and nonfuel) purposes.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

-- Estimation is not applicable. Energy source is not included in series.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."